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INSTRUMENT APPROACH PROCEDURE CHARTS

IFR ALTERNATE AIRPORT MINIMUMS

Standard alternate minimums for non precision approaches are 800-2 (NDB, VOR, LOC, TACAN, LDA, VORTAC, VOR/DME, ASR or WAAS LNAV); for precision approaches 600-2 (ILS or PAR). Airports within this geographical area that require alternate minimums other than standard or alternate minimums with restrictions are listed below. NA - means alternate minimums are not authorized due to unmonitored facility or absence of weather reporting service. Civil pilots see FAR 91. IFR Alternate Airport Minimums: Ceiling and Visibility Minimums not applicable to USA/USN/USAF. Pilots must review the IFR Alternate Airport Minimums Notes for alternate airfield suitability.

NAME — ALTERNATE MINIMUMS

ABERDEEN, SD
ABERDEEN RGNL **RNAV (GPS) Rwy 13**
RNAV (GPS) Rwy 31
RNAV (GPS) Rwy 35
VOR Rwy 31
VOR/DME Rwy 13
NA when local weather not available.

ALBERT LEA, MN
ALBERT LEA MUNI **RNAV (GPS) Rwy 16**
NA when local weather not available.

ALEXANDRIA, MN
CHANDLER FIELD **RNAV (GPS) Rwy 31**
NA when local weather not available.

AUSTIN, MN
AUSTIN MUNI **RNAV (GPS) Rwy 17**
RNAV (GPS) Rwy 35
VOR/DME-A
NA when local weather not available.

BAUDETTE, MN
BAUDETTE INTL **RNAV (GPS) Rwy 30**[1]
VOR/DME Rwy 12[2]
VOR Rwy 30[2]
[1]NA when local weather not available.
[2]Category C, 800-2¼; Category D, 800-2½.

BEMIDJI, MN
BEMIDJI RGNL **RNAV (GPS) Rwy 13**
RNAV (GPS) Rwy 31
NA when local weather not available.

BENSON, MN
BENSON MUNI **RNAV (GPS) Rwy 14**
RNAV (GPS) Rwy 32
NA when local weather not available.

NAME — ALTERNATE MINIMUMS

BISMARCK, ND
BISMARCK MUNI **ILS Rwy 13**[12]
ILS Rwy 31[12]
RADAR-1[3]
[1]ILS, Category D, 800-2½; Category E, 900-3. LOC, NA.
[2]NA when control tower not in operation.
[3]NA when control tower closed.

BRAINERD, MN
BRAINERD LAKES RGNL ... **ILS or LOC Rwy 23**
RNAV (GPS) Rwy 12
RNAV (GPS) Rwy 23
RNAV (GPS) Rwy 30
RNAV (GPS) Rwy 34
NA when local weather not available.

BROOKINGS, SD
BROOKINGS RGNL **RNAV (GPS) Rwy 12**
RNAV (GPS) Rwy 30
NA when local weather not available.

CANBY, MN
MYERS FIELD **RNAV (GPS) Rwy 12**
RNAV (GPS) Rwy 30
NA when local weather not available.

CLOQUET, MN
CLOQUET CARLTON COUNTY **RNAV (GPS) Rwy 35**
NA when local weather not available.

COOK, MN
COOK MUNI **RNAV (GPS) Rwy 31**
NA when local weather not available.

CROOKSTON, MN
CROOKSTON MUNI-KIRKWOOD FIELD **RNAV (GPS) Rwy 13**[1]
RNAV (GPS) Rwy 31[1]
VOR Rwy 31[2]
[1]NA when local weather not available.
[2]Category A,B, 900-2; Category C, 900-2¼.

NAME ALTERNATE MINIMUMS

DETROIT LAKES, MN

DETROIT LAKES-WETHING FIELD **RNAV (GPS) Rwy 13**
RNAV (GPS) Rwy 31
NA when local weather not available.
Category D, 800-2¼.

DEVILS LAKE, ND

DEVILS LAKE RGNL **RNAV (GPS) Rwy 3**
RNAV (GPS) Rwy 13
RNAV (GPS) Rwy 31
VOR Rwy 3[1]
VOR Rwy 21[2]
NA when local weather not available.
[1]Categories A,B, 900-2; Category C, 900-2½; Category D, 900-2¾.
[2]Category C, 800-2¼, Category D, 800-2½.

DICKINSON, ND

DICKINSON-THEODORE ROOSEVELT RGNL **RNAV (GPS) Rwy 14**
RNAV (GPS) Rwy 32
VOR-A
NA when local weather not available.

DODGE CENTER, MN

DODGE CENTER **RNAV (GPS) Rwy 16**
RNAV (GPS) Rwy 34
VOR-A
NA when local weather not available.

DULUTH, MN

DULUTH INTL **COPTER ILS Rwy 9**
COPTER ILS Rwy 27
ILS Rwy 9
LOC, NA.

EVELETH, MN

EVELETH-VIRGINIA MUNI **VOR/DME or GPS-A**
Category C, 800-2¼; Category D,800-2½.

FAIRMONT, MN

FAIRMONT MUNI **RNAV (GPS) Rwy 13**
RNAV (GPS) Rwy 31
VOR Rwy 13
VOR Rwy 31
NA when local weather not available.

NAME ALTERNATE MINIMUMS

FARGO, ND

HECTOR INTL **ILS or LOC Rwy 18[1]**
ILS or LOC Rwy 36[1]
RNAV (GPS) Rwy 18[2]
RNAV (GPS) Rwy 36[2]
VOR/DME or TACAN Rwy 18[2]
VOR or TACAN Rwy 36[3]
[1]ILS, Category E, 700-2¼. LOC, Category E, 800-2¼.
[2]Category E, 800-2¼.
[3]Category D, 800-2¼, Category E, 800-2½.

FERGUS FALLS, MN

FERGUS FALLS MUNI-EINAR MICKELSON FIELD **ILS or LOC Rwy 31[1]**
NDB Rwy 31[2]
RNAV (GPS) Rwy 31[2]
RNAV (GPS) Rwy 35
NA when local weather not available.
[1]ILS, Category D, 700-2¼. LOC, Category D, 800-2¼.
[2]Category D, 800-2¼.

GLENCOE, MN

GLENCOE MUNI **RNAV (GPS) Rwy 31**
NA when local weather not available.

GRAND FORKS, ND

GRAND FORKS INTL ... **ILS or LOC Rwy 35L[12]**
LOC BC Rwy 17R[1]
RNAV (GPS) Rwy 9L[3]
RNAV (GPS) Rwy 17R[3]
RNAV (GPS) Rwy 27R[3]
RNAV (GPS) Rwy 35L[3]
VOR Rwy 17R[3]
VOR Rwy 35L[3]
[1]NA when control tower closed.
[2]ILS, Category E, 700-2½. LOC, Category E, 800-2½.
[3]NA when local weather not available.

GRAND MARAIS, MN

GRAND MARAIS/COOK COUNTY **RNAV (GPS) Rwy 27**
NA when local weather not available.

GRAND RAPIDS, MN

GRAND RAPIDS/ITASCA CO-GORDON NEWSTROM **RNAV (GPS) Rwy 16**
RNAV (GPS) Rwy 34
VOR Rwy 34
NA when local weather not available.

GRANITE FALLS, MN

GRANITE FALLS MUNI/LENZEN-ROE MEMORIAL FIELD **RNAV (GPS) Rwy 33**
NA when local weather not available.

NAME ALTERNATE MINIMUMS

HIBBING, MN

RANGE RGNL **ILS OR LOC/DME Rwy 13[1]**
VOR Rwy 13[2]

[1]ILS,Categories A,B,C,D, 800-2.
[2]Categories A,B, 900-2; Category C, 900-2½; Category D, 900-2¾; ILS, 700-2.

HURON, SD

HURON RGNL **ILS or LOC Rwy 12[12]**
LOC/DME BC Rwy 30[23]
RNAV (GPS) Rwy 12[23]
RNAV (GPS) Rwy 30[23]
VOR Rwy 12[23]

[1]ILS, Category D, 700-2¼. LOC, Category D, 800-2¼.
[2]NA when local weather not available.
[3]Category D, 800-2¼.

INTERNATIONAL FALLS, MN

FALLS INTL **COPTER ILS or LOC Rwy 31[1]**
ILS or LOC/DME Rwy 13,700-2[2]
ILS or LOC Rwy 31[2]
RNAV (GPS) Rwy 13[2]
RNAV (GPS) Rwy 31[2]
VOR Rwy 13[23]
VOR/DME Rwy 31[2]

[1]LOC, NA; ILS, NA when local weather not available.
[2]NA when local weather not available.
[3]Category D, 800-2¼.

JACKSON, MN

JACKSON MUNI **RNAV (GPS) Rwy 13**
RNAV (GPS) Rwy 31
NDB Rwy 13

NA when local weather not available.

JAMESTOWN, ND

JAMESTOWN RGNL **RNAV (GPS) Rwy 4**
RNAV (GPS) Rwy 13
RNAV (GPS) Rwy 22
RNAV (GPS) Rwy 31
VOR Rwy 31

NA when local weather not available.

MANKATO, MN

MANKATO RGNL **RNAV (GPS) Rwy 4**
RNAV (GPS) Rwy 15
RNAV (GPS) Rwy 22
RNAV (GPS) Rwy 33
VOR Rwy 15
VOR Rwy 33

NA when local weather not available.

MAPLE LAKE, MN

MAPLE LAKE MUNI **VOR-A**

NA when local weather not available.

NAME ALTERNATE MINIMUMS

MARSHALL, MN

SOUTHWEST MINNESOTA RGNL MARSHALL/ RYAN FLD **RNAV (GPS) Rwy 12**
VOR Rwy 12

NA when local weather not available.

MINNEAPOLIS, MN

ANOKA COUNTY-BLAINE ARPT (JANES FIELD) **ILS or LOC/DME Rwy 27**
RNAV (GPS) Rwy 9
RNAV (GPS) Rwy 18
RNAV (GPS) Rwy 27
VOR Rwy 9
VOR/DME Rwy 27

NA when local weather not available.

CRYSTAL **RNAV (GPS) Rwy 14L**

NA when local weather not available.

FLYING CLOUD **COPTER ILS or LOC Rwy 10R[1]**
ILS or LOC Rwy 10R[1]
RNAV (GPS) Rwy 10L
RNAV (GPS) Rwy 28R
VOR Rwy 10R
VOR/DME Rwy 36

NA when local weather not available.
[1]NA when control tower closed.

MINNEAPOLIS-ST. PAUL INTL/ WOLD CHAMBERLAIN **ILS Rwy 4[1]**
ILS or LOC Rwy 12L[2]
ILS or LOC Rwy 12R[1]
ILS or LOC Rwy 30L[1]
ILS or LOC Rwy 30R[2]
ILS or LOC Rwy 35[3]
LOC Rwy 4[4]
LOC Rwy 22[4]
RNAV (GPS) Rwy 4[4]
RNAV (GPS) Rwy 12L[5]
RNAV (GPS) Rwy 12R[4]
RNAV (GPS) Rwy 22[4]
RNAV (GPS) Rwy 30L[4]
RNAV (GPS) Rwy 30R[4]
RNAV (GPS) Z Rwy 35[6]

[1]ILS, Category D, 700-2; Category E, 900-3. LOC, Category E, 900-3.
[2]ILS, Categories A, B, C, 700-2; Category D, 700-2¼; Category E, 900-3. LOC, Category D, 800-2¼; Category E, 900-3.
[3]ILS, Categories A, B, 800-2; Category C, 800-2¼; Category D, 800-2½; Category E, 900-3. LOC, Category C, 800-2¼; Category D, 800-2½; Category E, 900-3.
[4]Category E, 900-3.
[5]Category D, 800-2¼; Cateogry E, 900-3.
[6]Category D, 800-2¼.

NAME ALTERNATE MINIMUMS

MINOT, ND

MINOT INTL **ILS or LOC Rwy 31[12]**
LOC/DME BC Rwy 13[1]
RNAV (GPS) Rwy 8
RNAV (GPS) Rwy 13
RNAV (GPS) Rwy 26
RNAV (GPS) Rwy 31
VOR Rwy 8[3]
VOR Rwy 26[4]

NA when local weather not available.
[1]NA when tower closed.
[2]Category E, 1100-3.
[3]Categories A, B, 1100-2; Categories C, D, 1100-3.
[4]Categories A,B, 900-2; Category C,900-2½; Category D,900-2¾.

MITCHELL, SD

MITCHELL MUNI **RNAV (GPS) Rwy 12**
RNAV (GPS) Rwy 30
VOR Rwy 12
VOR Rwy 30[1]

NA when local weather not available.
[1]Categories A,B, 1000-2; Categories C,D, 1000-3.

MOBRIDGE, SD

MOBRIDGE MUNI **RNAV (GPS) Rwy 12[1]**
RNAV (GPS) Rwy 30[2]

NA when local weather not available
[1]Category D, 900-2¾.
[2]Category C, 800-2¼; Category D, 900-2¾.

MORRIS, MN

MORRIS MUNI-CHARLIE
SCHMIDT FLD **RNAV (GPS) Rwy 14**
RNAV (GPS) Rwy 32

NA when local weather not available.

PINE RIDGE, SD

PINE RIDGE **RNAV (GPS) Rwy 30**

NA when local weather not available.
Categories A,B, 900-2.

PIPESTONE, MN

PIPESTONE MUNI **NDB Rwy 36**
RNAV (GPS) Rwy 18
RNAV (GPS) Rwy 36

NA when local weather not available.

NAME ALTERNATE MINIMUMS

PRESTON, MN

FILLMORE COUNTY **RNAV (GPS) Rwy 29**

NA when local weather not available.

RAPID CITY, SD

RAPID CITY RGNL **ILS or LOC Rwy 32[1]**
RNAV (GPS) Rwy 14[2]
RNAV (GPS) Rwy 32[2]
VOR or TACAN Rwy 14[2]
VOR or TACAN Rwy 32[2]

NA when local weather not available.
[1]ILS, Category D, 700-2; Category E, 800-2¾. LOC, Category E, 800-2¾.
[2]Category E, 800-2¼.

REDWOOD FALLS, MN

REDWOOD FALLS
MUNI **RNAV (GPS) Rwy 30**
VOR-A

Category D, 800-2¼.
NA when local weather not available.

ROCHESTER, MN

ROCHESTER INTL **ILS or LOC Rwy 13**
ILS or LOC Rwy 31
COPTER ILS or LOC Rwy 31

NA when control tower closed.

ROSEAU, MN

ROSEAU MUNI/
RUDY BILLBERG FIELD ... **RNAV (GPS) Rwy 16**
RNAV (GPS) Rwy 34

NA when local weather not available.

ST. CLOUD, MN

ST. CLOUD RGNL .. **ILS or LOC/DME Rwy 13[123]**
RNAV (GPS) Rwy 5[1]
RNAV (GPS) Rwy 13[1]
RNAV (GPS) Rwy 23[1]
RNAV (GPS) Rwy 31[1]
VOR/DME Rwy 13[12]
VOR Rwy 31[12]

[1]NA when local weather not available.
[2]NA when control tower closed.
[3]ILS,Categories, A, B, C, D, 700-2.

NAME ALTERNATE MINIMUMS

ST. PAUL, MN

ST. PAUL DOWNTOWN HOLMAN FIELD **ILS or LOC Rwy 14[12]**
ILS or LOC Rwy 32[13]
RNAV (GPS) Rwy 14[3]
RNAV (GPS) Rwy 32[4]

[1]NA when local weather not available.
[2]ILS,LOC, Categories A, B, 900-2; Category C, 900-2½; Category D, 900-2¾.
[3]Categories A, B, 900-2; Category C, 900-2½; Category D, 900-2¾.
[4]Categories A,B,C, 900-2½; Category D, 900-2¾.

SIOUX FALLS, SD

JOE FOSS FIELD **ILS Rwy 3[12]**
ILS Rwy 21[1]
RADAR-1[3]
VOR or TACAN Rwy 15[4]
VOR/DME or TACAN Rwy 33[3]

[1]NA when control tower closed.
[2]LOC, NA.
[3]Category E, 800-2¾.
[4]Category E, 900-3.

SOUTH ST. PAUL, MN

SOUTH ST. PAUL MUNI-RICHARD E FLEMING FIELD **RNAV (GPS) Rwy 34**
Category D, 800-2¼.
NA when local weather not available.

THIEF RIVER FALLS, MN

THIEF RIVER FALLS RGNL **RNAV (GPS) Rwy 13**
RNAV (GPS) Rwy 31
VOR Rwy 13
NA when local weather not available.

VERMILLION, SD

HAROLD DAVIDSON FIELD **RNAV (GPS) Rwy 30**
NA when local weather not available.

WARROAD, MN

WARROAD INTL MEMORIAL **RNAV (GPS) Rwy 13**
RNAV (GPS) Rwy 31
NA when local weather not available.

NAME ALTERNATE MINIMUMS

WASECA, MN

WASECA MUNI **RNAV (GPS) Rwy 15**
NA when local weather not available.

WATERTOWN, SD

WATERTOWN RGNL **LOC/DME BC Rwy 17**
NDB Rwy 35
RNAV (GPS) Rwy 12
RNAV (GPS) Rwy 17
RNAV (GPS) Rwy 30
RNAV (GPS) Rwy 35
VOR or TACAN Rwy 17
NA when local weather not available.

WILLISTON, ND

SLOULIN FIELD INTL..... **VOR or GPS Rwy 11**
Category D, 800-2¼.

WILLMAR, MN

WILLMAR MUNI-JOHN L RICE FIELD **RNAV (GPS) Rwy 13**
RNAV (GPS) Rwy 31
VOR Rwy 13
VOR Rwy 31[1]
NA when local weather not available.
[1]Category D, 800-2¼.

WINNER, SD

WINNER RGNL **RNAV (GPS) Rwy 13**
RNAV (GPS) Rwy 31
VOR-A
NA when local weather not available.

WORTHINGTON, MN

WORTHINGTON MUNI **VOR or GPS Rwy 11**
Category D, 800-2¼.

YANKTON, SD

CHAN GURNEY MUNI ... **RNAV (GPS) Rwy 13[1]**
VOR Rwy 13[1]
VOR Rwy 31[2]
[1]NA when local weather not available.
[2]Category D, 800-2¼.

BISMARCK, ND

Amdt. 3A, DEC 13, 2002 (FAA) ELEV **1661**

BISMARCK MUNI

RADAR - 126.3 298.9

	RWY	GS/TCH/RPI	CAT	DA/ MDA-VIS	HAT/ HATh/ HAA	CEIL-VIS	CAT	DA/ MDA-VIS	HAT/ HATh/ HAA	CEIL-VIS
ASR	13		AB	**2100**-1	445	(500-1)	C	**2100**-1¼	445	(500-1¼)
			D	**2100**-1½	445	(500-1½)				
	31		AB	**2100**/24	455	(500-½)	C	**2100**/40	455	(500-¾)
			D	**2100**/50	455	(500-1)				
	21		AB	**2120**-1	459	(500-1)	C	**2120**-1¼	459	(500-1¼)
			D	**2120**-1½	459	(500-1½)				
	3		AB	**2120**-1	459	(500-1)	C	**2120**-1¼	459	(500-1¼)
			D	**2120**-1½	459	(500-1½)				
CIRCLING			A	**2180**-1	519	(600-1)	B	**2220**-1	539	(600-1)
			C	**2220**-1½	559	(600-1½)	D	**2240**-2	579	(600-2)

Inoperative table does not apply to MALS Rwy 13.

DULUTH, MN

Amdt. 20, OCT 7, 1999 (FAA) ELEV **1428**

DULUTH INTL

RADAR - 125.45 255.9

	RWY	GS/TCH/RPI	CAT	DA/ MDA-VIS	HAT/ HATh/ HAA	CEIL-VIS	CAT	DA/ MDA-VIS	HAT/ HATh/ HAA	CEIL-VIS
ASR	3		ABC	**1820**-1	400	(400-1)	D	**1820**-1¼	400	(400-1¼)
			E	**1820**-1½	400	(400-1½)				
	27		AB	**1860**/24	439	(500-½)	C	**1860**/40	439	(500-¾)
			DE	**1860**/50	439	(500-1)				
	21		AB	**1860**-1	440	(500-1)	C	**1860**-1¼	440	(500-1¼)
			DE	**1860**-1½	440	(500-1½)				
	9		AB	**1880**/24	452	(500-½)	C	**1880**/40	452	(500-¾)
			DE	**1880**/50	452	(500-1)				
CIRCLING			AB	**1920**-1	492	(500-1)	C	**1920**-1½	492	(500-1½)
			DE	**1980**-2	552	(600-2)				

Category E circling NA southeast of Rwys 3 and 27.

ELLSWORTH AFB (KRCA) (Rapid City), SD (Amdt 1, 08045 USAF) ELEV **3276**

RADAR - (E) 119.5 259.1[1]

	RWY	GS/TCH/RPI	CAT	DH/ MDA-VIS	HAT/ HATh/ HAA	CEIL-VIS
ASR	13[2]		AB	**3820**/40	544	(600-¾)
			C	**3820**/50	544	(600-1)
			D	**3820**/60	544	(600-1¼)
			E	**3820**-1½	544	(600-1½)
	31[2]		AB	**3820**/40	628	(600-¾)
			C	**3820**/60	628	(600-1¼)
			D	**3820**-1½	628	(600-1½)
			E	**3820**-1¾	628	(600-1¾)
CIR	All Rwy[3]		A	**3860**-1¼	584	(600-1¼)
			B	**3880**-1¼	604	(700-1¼)
			C	**3880**-1¾	604	(700-1¾)
			D	**3880**-2	604	(700-2)
			E	**4040**-2¾	764	(800-2¾)

[1]Opr 1300-0730Z++ Mon-Thu, 1300-0500Z++ Fri. 1400-0500Z++ Sat, Sun and hol. [2]When ALS inop, increase CAT AB RVR to 60 and vis to 1¼, increase CAT CDE vis ½ mile. [3]CAT E circling restricted to 28th BW aircraft only; 28th BW aircraft will remain within class D airspace.

MANDAN, ND Amdt. 4, NOV 09, 1995 (FAA) ELEV **1942**

MANDAN MUNI

RADAR - 126.3 298.9 ⚠ NA

	RWY	GS/TCH/RPI	CAT	DA/ MDA-VIS	HAT/ HATh/ HAA	CEIL-VIS	CAT	DA/ MDA-VIS	HAT/ HAT/ HAA	CEIL-VIS
ASR	31		AB	**2360**-1	418	(500-1)	CD	**2360**-1¼	418	(500-1¼)
	13		AB	**2460**-1	520	(600-1)	C	**2460**-1½	520	(600-1½)
			D	**2460**-1¾	520	(600-1¾)				
CIRCLING			A	**2460**-1	518	(600-1)	B	**2500**-1	558	(600-1)
			C	**2500**-1½	558	(600-1½)	D	**2500**-2	558	(600-2)

Use Bismarck altimeter setting.
When Bismarck control tower closed, ASR NA.

ROCHESTER, MN

Amdt. 8, JAN 15, 2009 (FAA) ELEV **1317**

ROCHESTER INTL

RADAR - 119.8 251.125

	RWY	GS/TCH/RPI	CAT	DA/ MDA-VIS	HAT/ HATh/ HAA	CEIL-VIS	CAT	DA/ MDA-VIS	HAT/ HATh/ HAA	CEIL-VIS
ASR	2		ABC	**1680**-1	363	(400-1)	D	**1680**-1¼	363	(400-1¼)
	13		ABC	**1640**/24	360	(400-½)	D	**1640**/50	360	(400-1)
	20		ABC	**1660**-1	356	(400-1)	D	**1660**-1¼	356	(400-1¼)
	31		ABC	**1660**/24	356	(400-½)	D	**1660**/50	356	(400-1)
CIRCLING			A	**1720**-1	403	(500-1)	B	**1780**-1	463	(500-1)
			C	**1780**-1½	463	(500-1½)	D	**1880**-2	563	(600-2)

When control tower closed, procedure NA. For inoperative MALSR, increase S-13 and S-31 Cat D visibility to RVR 6000. Visibility reduction by helicopters NA Rwy 2-20.

SIOUX FALLS, SD

Amdt. 10A, OCT 3,2003 (FAA) ELEV **1429**

JOE FOSS FIELD

RADAR - 125.8 353.6 A

	RWY	GS/TCH/RPI	CAT	DA/ MDA-VIS	HAT/ HATh/ HAA	CEIL-VIS	CAT	DA/ MDA-VIS	HAT/ HATh/ HAA	CEIL-VIS
ASR	3		AB	**1940**/24	517	(600-½)	C	**1940**/50	517	(600-1)
			DE	**1940**/60	517	(600-1¼)				
	33		AB	**1920**-1	497	(500-1)	C	**1920**-1¼	497	(500-1¼)
			D	**1920**-1½	497	(500-1½)	E	**1920**-1¾	497	(500-1¾)
	21		AB	**1960**/24	531	(600-½)	C	**1960**/50	531	(600-1)
			D	**1960**/60	531	(600-1¼)	E	**1960**-1½	531	(600-1½)
	15		AB	**1960**-1	534	(600-1)	C	**1960**-1½	534	(600-1½)
			D	**1960**-1¾	534	(600-1¾)	E	**1960**-2	534	(600-2)
CIRCLING			AB	**1960**-1	531	(600-1)	C	**1960**-1½	531	(600-1½)
			D	**2040**-2	611	(700-2)	E	**2300**-3	871	(900-3)

When control tower closed, procedure not authorized.
Category E S-3 visibility increased 1¾ mile for inoperative MALSR.
Category E S-21 visibility increased to 2 miles for inoperative MALSR.

TAKE-OFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

INSTRUMENT APPROACH PROCEDURE CHARTS

IFR TAKE-OFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

Civil Airports and Selected Military Airports

ALL USERS: Airports that have Departure Procedures (DPs) designed specifically to assist pilots in avoiding obstacles during the climb to the minimum enroute altitude , and/or airports that have civil IFR take-off minimums other than standard, are listed below. Take-off Minimums and Departure Procedures apply to all runways unless otherwise specified. Altitudes, unless otherwise indicated, are minimum altitudes in MSL.

DPs specifically designed for obstacle avoidance are referred to as Obstacle Departure Procedures (ODPs) and are described below in text, or published separately as a graphic procedure. If the (Obstacle) DP is published as a graphic procedure, its name will be listed below, and it can be found in either this volume (civil), or a separate Departure Procedure volume (military), as appropriate. Users will recognize graphic obstacle DPs by the term "(OBSTACLE)" included in the procedure title; e.g., TETON TWO (OBSTACLE). If not assigned a SID or radar vector by ATC, an ODP may be flown without ATC clearance to ensure obstacle clearance.

Graphic DPs designed by ATC to standardize traffic flows, ensure aircraft separation and enhance capacity are referred to as "Standard Instrument Departures (SIDs)". SIDs also provide obstacle clearance and are published under the appropriate airport section. ATC clearance must be received prior to flying a SID.

CIVIL USERS NOTE: Title 14 Code of Federal Regulations Part 91 prescribes standard take-off rules and establishes take-off minimums for certain operators as follows: (1) Aircraft having two engines or less - one statute mile. (2) Aircraft having more than two engines - one-half statute mile. These standard minima apply in the absence of any different minima listed below.

MILITARY USERS NOTE: Civil (nonstandard) take-off minima are published below. For military take-off minima, refer to appropriate service directives.

NAME — TAKE-OFF MINIMUMS

ABERDEEN, SD

ABERDEEN RGNL (ABR)
ORIG 09239 (FAA)
NOTE: **Rwy 17,** trees 1138' from DER, 432' right of centerline, 41' AGL/1336' MSL. **Rwy 31,** multiple trees beginning 1391' from DER, 326' left of centerline, up to 65' AGL/1360' MSL.

AITKIN, MN

AITKIN MUNI-STEVE KURTZ FIELD (AIT)
AMDT 2 96172 (FAA)
TAKE-OFF MINIMUMS: **Rwys 8, 26,** 300-1. **Rwy 16,** 300-1 or std. with a min climb of 400' per NM to 1500.
DEPARTURE PROCEDURE: **Rwys 16, 26,** climb runway heading to 1700 before turning.

ALBERT LEA, MN

ALBERT LEA MUNI (AEL)
ORIG 85241 (FAA)
DEPARTURE PROCEDURE: **Rwys 16, 22,** climb runway heading to 1800 before turning on course.

ALEXANDRIA, MN

CHANDLER FIELD (AXN)
DEPARTURE PROCEDURE: **Rwys 4, 13, 22,** when weather is below 200-1, climb runway heading to 1800 before turning.

NAME — TAKE-OFF MINIMUMS

APPLETON, MN

APPLETON MUNI (AQP)
ORIG 94146 (FAA)
DEPARTURE PROCEDURE: **Rwy 4,** climb to 2000 before turning right. **Rwy 31,** climb to 2000 before turning left. **Rwy 13,** climb to 2400 before turning right. **Rwy 22,** climb to 2400 before turning left.

AUSTIN, MN

AUSTIN MUNI (AUM)
ORIG 08045 (FAA)
NOTE: **Rwy 17,** Multiple trees beginning 809' from departure end of runway, 663' right of centerline, up to 61' AGL/1285' MSL. **Rwy 35,** Tree 1380' from departure end of runway, 484' right of centerline, 100' AGL/1314' MSL.

BAUDETTE, MN

BAUDETTE INTL (BDE)
ORIG 01193 (FAA)
DEPARTURE PROCEDURE: **Rwy 12,** climb runway heading to 1700 before turning northbound.

BELLE FOURCHE, SD
BELLE FOURCHE MUNI (EFC)
AMDT 2 09015 (FAA)
TAKE-OFF MINIMUMS: **Rwys 18,36,** NA. **Rwy 14,** std. w/ min. climb of 240' per NM to 9000 or 1400-3 for climb in visual conditions. **Rwy 32,** std. w/ min. climb of 413' per NM to 3900.
DEPARTURE PROCEDURE: **Rwy 14,** for climb in visual conditions: cross Belle Fourche Muni airport at or above 4400 MSL before proceeding on course. **Rwy 32,** climb heading 321° to 3900 before proceeding southbound.
NOTE: **Rwy 14,** trees 651' from departure end of runway, 547' left of centerline, up to 20' AGL/3299' MSL. **Rwy 32,** trees 857' from departure end of runway, 150' left of centerline, up to 20' AGL/3199' MSL. Trees 3880' from departure end of runway, 966' right of centerline, up to 20' AGL/3289' MSL.

BEMIDJI, MN
BEMIDJI RGNL (BJI)
AMDT 3 08213 (FAA)
NOTE: **Rwy 7,** vegetation beginning 859' from departure end of runway, 544' right of centerline, up to 62' AGL/1442' MSL. Vegetation beginning 1404' from departure end of runway, 683' left of centerline, up to 44' AGL/1424' MSL. **Rwy 13,** vehicle on road, 541' from departure end of runway, 525' right of centerline, 15' AGL/1398' MSL. **Rwy 25,** poles beginning 1337' from departure end of runway, 205' right of ceterline up to 61' AGL/1445' MSL. Trees beginning 1414' from departure end of runway, 254' left of centerline, up to 57' AGL/1441' MSL. Tree 1406' from departure end of runway, 233' right of centerline, 53' AGL/1437' MSL.

BENSON, MN
BENSON MUNI (BBB)
AMDT 1 09127 (FAA)
NOTE: **Rwy 14,** numerous trees beginning 838' from DER, 246' right of centerline, up to 33' AGL/1087' MSL. Numerous trees beginning 1232' from DER, 64' left of centerline, up to 69' AGL/1108' MSL. Sign 206' from DER, 198' left of centerline, 19' AGL/1044' MSL. Tower 4884' from DER, 274' right of centerline, 126' AGL/1161' MSL. **Rwy 32,** Tree 2380' from DER, 646' left of centerline, 68' AGL/1107' MSL. Multiple fences beginning 13' from DER, 361' left of centerline, up to 8' AGL/1043' MSL.

BIGFORK, MN
BIGFORK MUNI (FOZ)
ORIG 97198 (FAA)
TAKE-OFF MINIMUMS: **Rwy 15,** 400-1 or std. with a min. climb of 250' per NM to 1800.

BISMARCK, ND
BISMARCK MUNI (BIS)
AMDT 7 01137 (FAA)
DEPARTURE PROCEDURE: **Rwys 3, 31,** climb runway heading to 2500 before proceeding on course. **Rwys 13, 21**, climb runway heading to 3800 before proceeding south.

BOTTINEAU, ND
BOTTINEAU MUNI (D09)
ORIG 98113 (FAA)
TAKE-OFF MINIMUMS: **Rwy 13,** 800-1 or std. with a min. climb of 280' per NM to 2500. **Rwy 31,** 900-2 or std. with a min. climb of 360' per NM to 2900. **Rwys 3, 21,** NA.

BRAINERD, MN
BRAINERD LAKES RGNL (BRD)
AMDT 5 07074 (FAA)
NOTE: **Rwy 12,** multiple trees beginning 165' from departure end of runway, 417' left of centerline, up to 78' AGL/1279' MSL. Multiple trees and vehicle on road beginning 304' from departure end of runway, 206' right of centerline, up to 66' AGL/1277' MSL. **Rwy 16,** multiple trees beginning 1830' from departure end of runway, 749' left of centerline, up to 74' AGL/1314' MSL. **Rwy 23,** multiple trees beginning 1495' from departure end of runway, 179' left of centerline, up to 48' AGL/1285' MSL. Tree 2437' from departure end of runway, 716' right of centerline, 50' AGL/1279' MSL. **Rwy 30,** multiple trees beginning 243' from departure end of runway, 131' left of centerline, up to 61' AGL/1287' MSL. Multiple trees 48' from departure end of runway, 328' right of centerline, up to 59' AGL/1329' MSL.

BRITTON, SD
BRITTON MUNI (BTN)
AMDT 2 96060 (FAA)
TAKE-OFF MINIMUMS: **Rwy 13,** 300-1 or std. with a min. climb of 450' per NM to 1600. **Rwy 19,** 300-1.
DEPARTURE PROCEDURE: **Rwy 19,** climb runway heading to 2000 before turning.

BROOKINGS, SD
BROOKINGS RGNL (BKX)
ORIG 09015 (FAA)
NOTE: **Rwy 12,** pole and trees beginning 1041' from departure end of runway, 207' left of centerline, up to 65' AGL/1705' MSL. Building 1277' from departure end of runway, 825' right of centerline, 38' AGL/1618' MSL. **Rwy 17,** vehicle on road 799' from departure end of runway, on centerline, up to 15' AGL/1687' MSL. Trees beginning 906' from departure end of runway, 464' left of centerline, up to 100' AGL/1749' MSL. **Rwy 30,** railroad beginning 547' from departure end of runway, 502' right of centerline, 23' AGL/1626' MSL. Tree 132' from departure end of runway, 433' left of centerline, 20' AGL/1615' MSL. **Rwy 35,** trees 2892' from departure end of runway, 944' right of centerline, up to 100' AGL/1709' MSL.

CANBY, MN
MYERS FIELD (CNB)
ORIG 07186 (FAA)
NOTE: **Rwy 12,** truck on road 183' from departure end of runway, 220' right of centerline, 15' AGL/1204' MSL.

CASSELTON, ND

CASSELTON ROBERT MILLER RGNL (5N8)
ORIG 07354 (FAA)

TAKE-OFF MINIMUMS: **Rwy 31,** 400-2½ or std. w/ a min. climb of 212' per NM to 1400 or alternatively, with standard takeoff minimums and a normal 200'/NM climb gradient, takeoff must occur no later than 1700' prior to departure end of runway.

NOTE: **Rwy 13,** railroad 30' from departure end of runway, 505' right of centerline, 23' AGL/945' MSL. Vehicle on road 449' from departure end of runway, 300' left of centerline, 15' AGL/949' MSL. **Rwy 31,** trees 2251' from departure end of runway, 456' left of centerline, up to 100' AGL/1052' MSL.

CAVALIER, ND

CAVALIER MUNI (2C8)
ORIG 03191 (FAA)

TAKE-OFF MINIMUMS: **Rwy 16,** 300-1 or std. with a min. climb of 430' per NM to 1200.

NOTE: **Rwy 16,** grain elevator 3731' from departure end of runway, 284' left of centerline, 168' AGL/1060' MSL.

CLOQUET, MN

CLOQUET CARLTON COUNTY (COQ)
AMDT 1 80248 (FAA)

TAKE-OFF MINIMUMS: **Rwy 7,** 300-1 or std. with a min. climb of 400' per NM to 1400.

CROOKSTON, MN

CROOKSTON MUNI-KIRKWOOD FIELD (CKN)
AMDT 2 07298 (FAA)

TAKE-OFF MINIMUMS: **Rwys 6, 17, 24, 35,** NA-turf runways.

NOTE: **Rwy 13,** tree 1998' from departure end of runway, 587' left of centerline, 94' AGL/970' MSL. Pole 1127' from departure end of runway, 662' left of centerline, 46' AGL/926' MSL.

DETROIT LAKES, MN

DETROIT LAKES-WETHING FIELD (DTL)
ORIG 05132 (FAA)

TAKE-OFF MINIMUMS: **Rwys 17, 35,** NA.

NOTE: **Rwy 31,** highway 243' from departure end of runway, 267' right of centerline, 15' AGL/1404' MSL. Railroad 534' from departure end of runway, 298' right of centerline, 23' AGL/1411' MSL.

DEVILS LAKE, ND

DEVILS LAKE RGNL (DVL)
AMDT 1A 09351 (FAA)

TAKE-OFF MINIMUMS: **Rwy 31,** 300-1 or std. with a min. climb of 350' per NM to 1600.

NOTE: **Rwy 3,** tree 1528' from DER, 319' left of centerline, 100' AGL/1490' MSL. Tree 1520' from DER, 136' right of centerline, 100' AGL/1489' MSL. **Rwy 13,** bush 266' from DER, 523' left of centerline, 17' AGL/1451' MSL. Road, light pole and antenna on building beginning 95' from DER, 414' right of centerline, up to 17' AGL/1484' MSL. **Rwy 21,** roads beginning 335' from DER, 2' right of centerline, 15' AGL/1447' MSL, multiple poles, trees and towers beginning 552' from DER 355' left of centerline, up to 123' AGL/1548' MSL. **Rwy 31,** road 470' from DER, 424' right of centerline, 15' AGL/1472' MSL. Multiple poles and trees beginning 1180' from DER, 354' left of centerline, up to 49' AGL/1545' MSL.

DICKINSON, ND

DICKINSON-THEODORE ROOSEVELT RGNL (DIK)
AMDT 1 05244 (FAA)

DEPARTURE PROCEDURE: **Rwy 25,** climb via heading 250° to 3100 before turning left.

NOTE: **Rwy 7,** road 887' from departure end of runway, on rwy centerline, 15' AGL/2631' MSL.

DODGE CENTER, MN

DODGE CENTER (TOB)
ORIG 09015 (FAA)

TAKE-OFF MINIMUMS: **Rwy 22,** NA-Environmental.

NOTE: **Rwy 16,** trees 3945' from departure end of runway, 1542' left of centerline, 100' AGL/1409' MSL.

DULUTH, MN

DULUTH INTL (DLH)
ORIG 06327 (FAA)

NOTE: **Rwy 3,** multiple trees beginning 21' from departure end of runway, 226' right of centerline, up to 68' AGL/1477' MSL. Multiple trees beginning 246' from departure end of runway, 26' left of centerline, up to 64' AGL/1473' MSL. **Rwy 9,** electrical equipment 207' from departure end of runway, 408' left of centerline, 6' AGL/1425' MSL. **Rwy 21,** tower 3762' from departure end of runway, 410' left of centerline, 92' AGL/1522' MSL. **Rwy 27,** tree 2426' from departure end of runway, 1127' right of centerline, 53' AGL/1522' MSL. Bush and multiple trees beginning 347' from departure end of runway, 484' left of centerline, up to 44' AGL/1533' MSL.

SKY HARBOR (DYT)
ORIG 83174 (FAA)

TAKE-OFF MINIMUMS: **Rwy 14,** 300-1. **Rwy 32,** 1500-2 or std. with a min. climb of 360' per NM to 2300.

DEPARTURE PROCEDURE: **Rwy 14,** northwest departures (260° CW 030°) climb to 2300 via heading 260° or 030° before proceeding on course.

EAGLE BUTTE, SD

CHEYENNE EAGLE BUTTE (84D)
ORIG 96228 (FAA)

TAKE-OFF MINIMUMS: **Rwys 13,31,** 300-1.

ELY, MN
ELY MUNI (ELO)
AMDT 2 97086 (FAA)
TAKE-OFF MINIMUMS: **Rwy 12,** 300-1 or std. with a min. climb of 200' per NM to 1600.
DEPARTURE PROCEDURE: **Rwy 30,** northbound departures climb runway heading to 2000 before turning.

EVELETH, MN
EVELETH-VIRGINIA MUNI (EVM)
AMDT 2 94118 (FAA)
TAKE-OFF MINIMUMS: **Rwy 32,** 800-2 or std. with a min. climb to 330' per NM to 2300.
DEPARTURE PROCEDURE: **Rwy 27**, northwest departures (270°-050°) climb runway heading to 2200 before turning.

FAIRMONT, MN
FAIRMONT MUNI (FRM)
AMDT 3 09127 (FAA)
NOTE: **Rwy 2,** trees beginning 2466' from DER, 1105' right of centerline, up to 100' AGL/1269' MSL. **Rwy 13,** tree 2340' from DER, 1039' left of centerline, 100' AGL/1269' MSL. **Rwy 20,** trees beginning 1640' from DER, 914' right of centerline, up to 100' AGL/1289' MSL. Trees beginning 913' from DER, 449' left of centerline, up to 100' AGL/1299' MSL. **Rwy 31,** trees beginning 954' from DER, 161' left of centerline, up to 100' AGL/1299' MSL. Trees and road beginning 791' from DER, 339' right of centerline, up to 57' AGL/1226' MSL.

FARGO, ND
HECTOR INTL (FAR)
AMDT 4 04330 (FAA)
TAKE-OFF MINIMUMS: **Rwys 13,31,** NA.
NOTE: **Rwy 9,** multiple light poles 1124' from departure end of runway, 305' left of centerline, 20' AGL/927' MSL.

FERGUS FALLS, MN
FERGUS FALLS MUNI-EINAR MICKELSON FIELD (FFM)
ORIG 09239 (FAA)
NOTE: **Rwy 13,** trees beginning 2612' from DER, 128' right of centerline, up to 100' AGL/1269' MSL. Trees beginning 2514' from DER, 42' left of centerline, up to 100' AGL/1259' MSL. **Rwy 17,** trees beginning 1100' from DER 663' right of centerline, up to 100' AGL/1269' MSL. Road 222' from DER, 469' right of centerline, 15' AGL/1173' MSL. **Rwy 35,** trees beginning 2156' from DER, 176' right of centerline, up to 100' AGL/1289' MSL.

FOSSTON, MN
FOSSTON MUNI (FSE)
AMDT 1 87351 (FAA)
TAKE-OFF MINIMUMS: **Rwys 14, 32,** IFR takeoff not authorized.
DEPARTURE PROCEDURE: **Rwy 16,** climb runway heading to 2000 before turning.

GETTYSBURG, SD
GETTYSBURG MUNI (0D8)
AMDT 1 07018 (FAA)
NOTE: **Rwy 4,** multiple trees beginning 1011' from departure end of runway, 420' left of centerline, up to 60' AGL/2119' MSL. **Rwy 13,** multiple trees beginning 1897' from departure end of runway, 975' left of centerline, 60' AGL/2119' MSL. **Rwy 22,** multiple trees beginning 679' from departure end of runway, 117' left of centerline, up to 60' AGL/2109' MSL.

GLENCOE, MN
GLENCOE MUNI (GYL)
ORIG 09071 (FAA)
NOTE: **Rwy 13,** trees beginning349' from DER, 257' right of centerline, up to 100' AGL/1099' MSL. Trees beginning 1211' from DER, 314' left of centerline, up to 100' AGL/1109' MSL. Terrain beginning 53' from DER, 166' left of centerline, up to 998' MSL. Terrain beginning 286' from DER, 435' right of centerline, up to 1001' MSL. **Rwy 31,** trees beginning 501' from DER, 530' right of centerline, up to 100' AGL/1099' MSL. Tree 2577' from DER, 129' left of centerline, 100' AGL/1109' MSL.

GLENWOOD, MN
GLENWOOD MUNI (GHW)
AMDT 2 98337 (FAA)
TAKE-OFF MINIMUMS: **Rwy 5,** 1200-2 or std. with a min. climb of 220' per NM to 2900.

GRAFTON, ND
HUTSON FIELD (GAF)
ORIG 97086 (FAA)
TAKE-OFF MINIMUMS: **Rwy 35,** 400-2 or std. with a min. climb of 420' per NM to 1300.

GRAND FORKS, ND
GRAND FORKS INTL (GFK)
AMDT 2 09071 (FAA)
NOTE: **Rwy 9L,** tree 127' from DER, 451' left of centerline, 12' AGL/853' MSL. **Rwy 27R,** bush 38' from DER, 474' right of centerline, 5' AGL/844' MSL. **Rwy 35L,** obstruction light on DME 645' from DER, 198' left of centerline, 21' AGL/860' MSL. **Rwy 35R,** tree 1259' from DER, 521' right of centerline, 41' AGL/880' MSL. Tree 1655' from DER, 271' left of centerline, 45' AGL/884' MSL.

GRANT MARAIS, MN
GRAND MARAIS/COOK COUNTY (CKC)
ORIG 09015 (FAA)
NOTE: **Rwy 9,** trees beginning 58' from departure end of runway, 168' right of centerline up to 54' AGL/1833' MSL. Bushes 112' from departure end of runway, 142' left of centerline, 11' AGL/1805' MSL. Tree 464' from departure end of runway, 75' left of centerline, 14' AGL/1813' MSL. **Rwy 27,** trees beginning 85' from departure end of runway, 187' left of centerline, up to 59' AGL/1858' MSL. Trees beginning 282' from departure end of runway, 115' right of centerline, up to 42' AGL/1861' MSL.

GRAND RAPIDS, MN

GRAND RAPIDS/ITASCA COUNTY-GORDON NEWSTROM FIELD (GPZ)
AMDT 4 09127 (FAA)

TAKE-OFF MINIMUMS: **Rwys 5,10,23,28,** NA-Environmental.

NOTE: **Rwy 16,** tree 1655' from DER, 899' left of centerline, 51' AGL/1410' MSL. Tree 3236' from DER, 1130' right of centerline, 82' AGL/1441' MSL. **Rwy 34,** tree 3416' from DER, 1253' right of centerline, 100' AGL/1399' MSL.

GREGORY, SD

GREGORY MUNI, FLYNN FIELD (9D1)
ORIG 97142 (FAA)

TAKE-OFF MINIMUMS: **Rwy 31,** 400-2 or std. with a min. climb of 210' per NM to 2600.

GWINNER, ND

GWINNER-ROGER MELROE FIELD (GWR)
ORIG 09183 (FAA)

TAKE-OFF MINIMUMS: **Rwys 6, 24,** NA-Environment. **Rwy 34,** Std. w/ min. climb of 216' per NM to 2000, or 900-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 34,** for climb in visual conditions, cross Gwinner-Roger Melroe Field at or above 2000, before proceeding on course.

NOTE: **Rwy 16,** terrain beginning 15' from DER, 73' right of centerline, 1257' MSL. **Rwy 34,** road and vehicle 436' from DER, on centerline, 15' AGL/1286' MSL.

HAWLEY, MN

HAWLEY MUNI (04Y)
ORIG 07074 (FAA)

NOTE: **Rwy 34,** road 15' from departure end of runway, 421' left of centerline, 15' AGL/1224' MSL.

HETTINGER, ND

HETTINGER MUNI (HEI)
AMDT 1 98225 (FAA)

TAKE-OFF MINIMUMS: **Rwy 12,** 300-1 or std. with a min. climb rate of 220' per NM to 3000. **Rwys 17, 35** NA.

HIBBING, MN

RANGE RGNL (HIB)
AMDT 6 04218 (FAA)

DEPARTURE PROCEDURE: **Rwy 22,** climb via heading 227° to 2200 before turning right. **Rwy 31,** climb via heading 310° to 2200 before turning left.

NOTE: **Rwy 4,** antenna on pole, 361' from departure end of runway, 409' right of centerline, 1377' MSL. **Rwy 13,** obstacle light on pole, 1184' from departure end of runway, 636' left of centerline. Numerous trees beginning 1291' from departure end of runway, 745' left of centerline up to 1419' MSL. Trees 1497' from departure end of runway, 563' right of centerline, 1388' MSL. **Rwy 22,** multiple trees beginning 368' from departure end of runway, 170' right of centerline, up to 1416' MSL. Multiple trees beginning 413' from departure end of runway, 117' left of centerline, up to 1400' MSL. **Rwy 31,** light standard, 865' from departure end of runway, 595' right of centerline, 1381' MSL.

HILLSBORO, ND

HILLSBORO MUNI (3H4)
ORIG 97198 (FAA)

DEPARTURE PROCEDURE: **Rwys 16, 34,** climb runway heading to 2000 prior to turning westbound.

HINCKLEY, MN

FIELD OF DREAMS (04W)
ORIG 08045 (FAA)

NOTE: **Rwy 6,** Tree 82' from departure end of runway, 480' right of centerline, 100' AGL/1114' MSL. Tree 143' from departure end of runway, 161' left of centerline, 100' AGL/1114' MSL. **Rwy 24,** Tree 48' from departure end of runway, 165' left of centerline, 100' AGL/1124' MSL.

HOT SPRINGS, SD

HOT SPRINGS MUNI (HSR)
ORIG 97142 (FAA)

TAKE-OFF MINIMUMS: **Rwy 1,** 300-1 or std. with a min. climb of 360' per NM to 5000. **Rwy 19,** 300-2 or std. with a min. climb of 250' per NM to 5000.

DEPARTURE PROCEDURE: **Rwys 1,19,** climb runway heading to 5000 before proceeding westbound.

HURON, SD

HURON RGNL (HON)
AMDT 5 09239 (FAA)

NOTE: **Rwy 12,** trees and pole beginning 918' from DER, 525' left of centerline, up to 62' AGL/1341' MSL. Trees beginning 291' from DER, 234' right of centerline, up to 100' AGL/1389' MSL. **Rwy 17,** trees beginning 236' from DER, 307' left of centerline, up to 67' AGL/1346' MSL. Trees beginning 264' from DER, 262' right of centerline, 73' AGL/1352' MSL. **Rwy 30,** trees beginning 3428' from DER, 1378' left of centerline, up to 100' AGL/1394' MSL. **Rwy 35,** trees beginning 60' from DER, 104' left of centerline, up to 49' AGL/1328' MSL. Trees beginning 251' from DER, 97' right of centerline, 52' AGL/1331' MSL.

INTERNATIONAL FALLS, MN

FALLS INTL (INL)
AMDT 3 08101 (FAA)

NOTE: **Rwy 4,** Tree 392' from departure end of runway 311' left of centerline, 51' AGL/1231' MSL. **Rwy 13,** multiple trees beginning 1999' from departure end of runway, 773' left of centerline, up to 63' AGL/1233' MSL. Pole 1091, from departure end of runway, 703' right of centerline, 37' AGL/1207' MSL. Road 1005' from departure end of runway, 766' left of centerline, 15' AGL/1195' MSL. **Rwy 22,** Multiple trees beginning 433' from departure end of runway 273' left of centerline, up to 33' AGL/1213' MSL. Trees 1144' from departure end of runway 136' right of centerline, 28' AGL/1208' MSL. **Rwy 31,** Trees 968' from departue end of runway, 752' left of centerline, 56' AGL/1236' MSL.

JACKSON, MN

JACKSON MUNI (MJQ)
ORIG 08045 (FAA)

TAKE-OFF MINIMUMS: **Rwys 4,22,** NA-TURF.

DEPARTURE PROCEDURE: **Rwy 13,** Climb heading 134° to 1900 before turning right.

NOTES: **Rwy 13,** Trees beginning 1474' from departure end of runway, 556' left of centerline, up to 80' AGL/1539' MSL. Vehicle on road 258' from departure end of runway, 559' from centerline, 15' AGL/1459' MSL. **Rwy 31,** Vehicle on road 465' from departure end of runway, 618' left of centerline, 15' AGL/1446' MSL. Trees beginning 1616' from departure end of runway, 580' right of centerline, up to 80' AGL/1519' MSL. Trees beginning 1110' from departure end of runway, 429' left of centerline, up to 80' AGL/1509' MSL.

JAMESTOWN, ND

JAMESTOWN RGNL (JMS)
AMDT 1 07242 (FAA)

NOTE: **Rwy 22,** antenna and tank beginning 2960' from departure end of runway, 1007' left of centerline, up to 150' AGL/1631' MSL. **Rwy 31,** multiple trees beginning 2129' from departure end of runway 47' right of centerline, up to 60' AGL/1560' MSL.

KINDRED, ND

HAMRY FIELD (K74)
ORIG 10042 (FAA)

NOTE: **Rwy 29,** tree 991' from DER, 367' left of centerline, 38' AGL/982' MSL. Tree 1073' from DER, 221' left of centerline, 38' AGL/982' MSL.

LITCHFIELD, MN

LITCHFIELD MUNI (LJF)

DEPARTURE PROCEDURE: **Rwys 13, 31,** climb to 1800 on runway heading before proceeding on course.

LITTLE FALLS, MN

LITTLE FALLS/MORRISON COUNTY CHARLES A. LINDBERGH FIELD (LXL)
AMDT 3 96172 (FAA)

TAKE-OFF MINIMUMS: **Rwy 13,** 300-1 or std. with a min. climb of 250' per NM to 1500. **Rwy 36,** 600-1½ or std. with a min. climb of 345' per NM to 1700.

DEPARTURE PROCEDURE: **Rwy 31**, climb to 1700 before turning.

LONG PRAIRIE, MN

TODD FIELD (14Y)
ORIG 08157 (FAA)

NOTE: **Rwy 16,** tree 273' from departure end of runway, 310' right of centerline, 100' AGL/1436' MSL. **Rwy 34,** tree 70' from departure end of runway, 100' right of centerline, 100' AGL/1439' MSL. Tree 122' from departure end of runway, 105' left of centerline, 100' AGL/1436' MSL. Tree 18' from departure end of runway, 106' right of centerline, 100' AGL/1433' MSL.

MANKATO, MN

MANKATO RGNL (MKT)
ORIG 09267 (FAA)

NOTE: **Rwy 4,** trees beginning 447' from DER, 408' right of centerline, up to 100' AGL/1078' MSL. Trees beginning 1996' from DER, 17' left of centerline, up to 100' AGL/1084' MSL. **Rwy 15,** trees beginning 1552' from DER, 719' left of centerline, up to 100' AGL/1088' MSL. **Rwy 22,** trees beginning 2370' from DER, 989' right of centerline, up to 100' AGL/1069' MSL. **Rwy 33,** trees beginning 2085' from DER, 780' right of centerline, up to 100' AGL/1077' MSL. Rising terrain 9' from DER, 65' right of centerline, up to 1029' MSL. Terrain beginning 82' from DER, 60' left of centerline, up to 1029' MSL.

MARSHALL, MN

SOUTHWEST MINNESOTA RGNL MARSHALL/RYAN FIELD (MML)
AMDT 2 08101 (FAA)

TAKE-OFF MINIMUMS: **Rwy 20,** Std. w/ min. climb of 270' per NM to 2000, or 1000-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 20,** for climb in visual conditions, cross Marshall Airport at or above 2000 MSL before proceeding on course.

NOTE: **Rwy 12,** Pole 706' from departure end of runway, 671' right of centerline, 60' AGL/1212' MSL, pole 1580' from departure end of runway, 732' left of centerline, 70' AGL/1225' MSL, antenna 1496' from departure end of runway, 620' right of centerline, 64' AGL/1219' MSL, pole 1185' from departure end of runway, 540' right of centerline, 55' AGL/1210' MSL, tree 3564' from departure end of runway, 400' right of centerline, 110' AGL/1269' MSL, tree 2135' from departure end of runway, 113' left of centerline, 77' AGL/1232' MSL. **Rwy 30,** Vehicle on road 1' from departure end of runway, 435' left of centerline, 24' AGL/1200' MSL.

MILBANK, SD

MILBANK MUNI (1D1)
ORIG 08101 (FAA)

TAKE-OFF MINIMUMS: **Rwy 25,** Std. w/ a min. climb of 207' per NM to 1900, or 900-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 25,** For climb in visual conditions cross Milbank Muni airport at or above 1900 before proceeding on course.

NOTE: **Rwy 7,** trees beginning 1207' from departure end of runway, 387' left of centerline, up to 100' AGL/1219' MSL. Vehicle on road 829' from departure end of runway, 373' right of centerline, 15' AGL/1134' MSL. Building 322' from departure end of runway, 582' right of centerline, 25' AGL/1134' MSL. **Rwy 13,** trees beginning 1448' from departure end of runway, 394' right of centerline, up to 100' AGL/1219' MSL. Vehicle on road 218' from departure end of runway, 490' left of centerline, 15' AGL/1134' MSL. Building 78' from departure end of runway, 397' left of centerline, 25' AGL/1134' MSL. **Rwy 25,** tree 3584' from departure end of runway, 477' left of centerline, 100' AGL/1249' MSL. **Rwy 31,** tree 2992' from departure end of runway, 715' left of centerline, 100' AGL/1239' MSL.

MILLER, SD

MILLER MUNI (MKA)
ORIG 08269 (FAA)

NOTE: **Rwy 15,** vehicle on road 769' from departure end of runway, 642' right of centerline, 15' AGL/1599' MSL. Snow removal equipment 206' from departure end of runway, 475' right of centerline, 21' AGL/1594' MSL. Tree 3903' from departure end of runway, 998' left of centerline, 100' AGL/1684' MSL. **Rwy 33,** vehicle on road 450' from departure end of runway, 560' left of centerline, 15' AGL/1584' MSL. Tree 762' from departure end of runway, 628' left of centerline, 100' AGL/1669' MSL.

MINNEAPOLIS, MN

ANOKA COUNTY-BLAINE AIRPORT
(JANES FIELD) (ANE)
AMDT 5 10042 (FAA)

TAKE-OFF MINIMUMS; **Rwy 9,** 300-1½ or std. w/ min. climb of 204' per NM to 1200, or alternatively, with standard takeoff minimums and a normal 200'/NM climb gradient, takeoff must occur no later than 1200' prior to DER.

DEPARTURE PROCEDURE: **Rwy 9,** climb heading 089° to 2200 before turning right. **Rwy 18,** climb heading 179° to 2600 before turning left. **Rwy 27,** climb heading 269° to 1700 before proceeding southeast bound. **Rwy 36,** climb heading 359° to 1700 before proceeding southeast bound.

NOTE: **Rwy 9,** tank and multiple trees beginning 822' from DER, 619' right of centerline, up to 170' AGL/1082' MSL. Trees 2248' from DER, 966' left of centerline, 100' AGL/1009' MSL. **Rwy 18,** aircraft on taxiway 36' from DER, 481' right of centerline, up to 21' AGL/928' MSL. Multiple trees beginning 406' from DER, 287' left of centerline, up to 49' AGL/959' MSL. **Rwy 27,** multiple trees beginning 7' from DER, 235' right of centerline, up to 83' AGL/983' MSL. Multiple trees beginning 558' from DER, 406' left of centerline, up to 57' AGL/957'MSL. **Rwy 36,** multiple trees beginning 86' from DER, 10' right of centerline, up to 87' AGL/987' MSL. Multiple trees beginning 1282' from DER, 53' left of centerline, up to 70' AGL/970' MSL.

CRYSTAL (MIC)
AMDT 2 81050 (FAA)

TAKE-OFF MINIMUMS: **Rwys 14L,14R,32L,32R,** 300-1. **Rwys 24L,24R,** 300-1 or std. with a min. climb of 215' per NM to 1000. **Rwys 6L, 6R,** 300-1 or std. with a min. climb of 285' per NM to 1000.

DEPARTURE PROCEDURE: **Rwys 6L,6R,14L,14R,** eastbound departures (050°-130°) climb runway heading to 2800 before turning.

MINNEAPOLIS, MN (CON'T)

FLYING CLOUD (FCM)
AMDT 4 08157 (FAA)

NOTE: **Rwy 10L,** multiple antenna's on hangar's beginning 270' from departure end of runway, 330' left of centerline, up to 26' AGL/932' MSL. Tree 682' from departure end of runway, 668' right of centerline, 26' AGL/932' MSL. **Rwy 10R,** multiple obstruction light on poles beginning 287' from departure end of runway, 345' right of centerline, up to 36' AGL/939' MSL. Hangar 150' from departure end of runway, 422' right of centerline, 21' AGL/920' MSL. Antenna on building, 536' from departure end of runway, 263' right of centerline, 14' AGL/913' MSL. **Rwy 18,** multiple trees beginning 338' from departure end of runway, 166' left of centerline, up to 62' AGL/961' MSL. Obstruction light on fence 176' from departure end of runway, 127' left of centerline, 10' AGL/910' MSL. Vehicle and road 198' from departure end of runway, 196' left of centerline, 15' AGL/918' MSL. Floodlight 148' from departure end of runway, 374' right of centerline, 38' AGL/938' MSL. Obstruction light on hangar 282' from departure end of runway, 317' right of centerline, 37' AGL/937' MSL. **Rwy 28R,** Hangar 259' from departure end of runway, 355' right of centerline, 18' AGL/931' MSL. **Rwy 36,** wind vane 923' from departure end of runway, 404' left of centerline, 61' AGL/960' MSL. Vent on building 943' from departure end of runway, 295' left of centerline, 44' AGL/943' MSL. Pole 714' from departure end of runway, 351' left of centerline, 33' AGL/932' MSL. Multiple trees beginning 504' from departure end of runway, 324' right of centerline, up to 67' AGL/966' MSL.

MINNEAPOLIS, MN (CON'T)

MINNEAPOLIS-ST. PAUL INTL
(WOLD CHAMBERLAIN) (MSP)
AMDT 11 07130 (FAA)

TAKEOFF MINIMUMS: **Rwy 35,** std. with a min. climb of 219' per NM to 2100.

DEPARTURE PROCEDURE: **Rwy 4,** climb heading 043° to 2100 before turning left. **Rwy 30L,** climb heading 299° to 2100 before turning right. **Rwy 30R,** climb heading 299° to 2100 before turning right.

Rwy 35, climb via heading 348° to 2100 before turning left.

NOTE: **Rwy 4,** multiple trees beginning 800' from departure end of runway, 264' left of centerline, up to 75' AGL/921' MSL. Rod on building 2528' from departure end of runway, 1175' left of centerline, 78' AGL/922' MSL. Fence 803' from departure end of runway, 585' left of centerline, 15' AGL/860' MSL. Antenna on OL building 456' from departure end of runway, 319' left of centerline, 13' AGL/850' MSL. Light poles 1932' from departure end of runway, 718' left of centerline, 45' AGL/885' MSL. Stack 4535' from departure end of runway, 481' left of centerline, 139' AGL/949' MSL. **Rwy 12R,** multiple trees beginning 1477' from departure end of runway, 407' left of centerline, up to 86' AGL/851' MSL. Multiple trees beginning 1426' from departure end of runway, 124' right of centerline, up to 111' AGL/847' MSL. Light pole 1408' from departure end of runway, 746' right of centerline, 85' AGL/843' MSL. Radar RFLTR 983' from departure end of runway, 32' left of centerline, 15' AGL/829' MSL. Pipe on building, 826' from departure end of runway, 576' left of centerline, 10' AGL/825' MSL. Obstruction light on localizer 766' from departure end of runway, on centerline, 7' AGL/821' MSL. **Rwy 17,** antenna 1272' from departure end of runway, 562' right of centerline, 57' AGL/891' MSL. Pole 409' from departure end of runway, 530' right of centerline, 29' AGL/866' MSL. WDI on building 2619' from departure end of runway, 881' left of centerline, 97' AGL/918' MSL. Building 2619' from departure end of runway, 859' left of centerline, 84' AGL/905' MSL. Light 1176' from departure end of runway, 291' right of centerline, 11' AGL/875' MSL. Tree 2619' from departure end of runway, on centerline, 79' AGL/900' MSL. **Rwy 22,** tree 2906' from departure end of runway, 833' right of centerline, 94' AGL/934' MSL. Hopper 1717' from departure end of runway, 456' left of centerline, 48' AGL/888' MSL. **Rwy 30L,** multiple trees beginning 1113' from departure end of runway, 701' left of centerline, up to 80' AGL/919' MSL. Tree 1230' from departure end of runway, 633' right of centerline, 30' AGL/877' MSL. Ground 28' from departure end of runway, 490' right of centerline, 0' AGL/844' MSL.

Rwy 30R, building 1056' from departure end of runway, 198' left of centerline, 13' AGL/853' MSL. Multiple trees beginning 3010' from departure end of runway, 334' left of centerline, up to 94' AGL/940' MSL. Light pole 1849' from departure end of runway, 698' right of centerline, 17' AGL/871' MSL. Fence 1327' from departure end of runway, 667' right of centerline, 8' AGL/857' MSL. Tree 3703' from departure end of runway, 350' right of centerline, 67' AGL/914' MSL. Rod on pole 3143' from departure end of runway, 47' right of centerline, 38' AGL/898' MSL. **Rwy 35,** tree 175' from departure end of runway, 398' right of centerline, 73' AGL/883' MSL. Multiple trees beginning 1989' from departure end of runway, 351' left of centerline, up to 65' AGL/902' MSL. Multiple buildings beginning 5.45 NM from departure end of runway, 1787' left of centerline, up to 811' AGL/1743' MSL.

MINOT, ND

MINOT INTL (MOT)
AMDT 3 06103 (FAA)

TAKE-OFF MINIMUMS: **Rwy 26,** 300-1½ or std. with a min. climb of 219' per NM to 2000.

DEPARTURE PROCEDURE: **Rwy 13,** climb via heading 128° to 2200 before turning right. **Rwy 26,** climb via heading 260° to 2300 before turning left.

NOTE: **Rwy 8,** tree 1801' from departure end of runway, 292' left of centerline, 56' AGL/1714' MSL. Tree 1459' from departure end of runway, 528' left of centerline, 47' AGL/1705' MSL. **Rwy 26,** tree 1750' from departure end of runway, 618' right of centerline, 71' AGL/1786' MSL. Tree 1829' from departure end of runway, 376' left of centerline, 65' AGL/1780' MSL. Light pole 1110' from departure end of runway, 610' left of centerline, 44' AGL/1759' MSL. Tank 1.1 NM from departure end of runway, 1810' right of centerline, 184' AGL/1899' MSL. Tree 1782' from departure end of runway, 273' right of centerline, 49' AGL/1764' MSL. Light pole 1294' from departure end of runway, 452' right of centerline, 29' AGL/1751' MSL. Tree 2019' from departure end of runway, 393' right of centerline, 54' AGL/1769' MSL. Building 1431' from departure end of runway, 301' right of centerline, 38' AGL/1753' MSL. Light pole 1418' from departure end of runway, 23' right of centerline, 36' AGL/1751' MSL.

MITCHELL, SD

MITCHELL MUNI (MHE)
AMDT 1 86240 (FAA)

DEPARTURE PROCEDURE: **Rwys 12, 17,** climb to 1800 before turning.

MOBRIDGE, SD

MOBRIDGE MUNI(MBG)
ORIG 88154 (FAA)

TAKE-OFF MINIMUMS: **RWY 35,** 300-1.

DEPARTURE PROCEDURE: **Rwys 12, 17, 30, 35,** climb runway heading to 2500 before turning on course.

MONTEVIDEO, MN

MONTEVIDEO-CHIPPEWA COUNTY (MVE)

TAKE-OFF MINIMUMS: **Rwy 21,** 400-1½.

DEPARTURE PROCEDURE: **Rwy 14,** climb runway heading to 1500 before turning.

MOOSE LAKE, MN

MOOSE LAKE CARLTON COUNTY (MZH)
ORIG 94006 (FAA)

TAKE-OFF MINIMUMS: **Rwys 4, 22,** 300-1.

MORRIS, MN

MORRIS MUNI-CHARLIE SCHMIDT FLD (MOX)
ORIG 08045 (FAA)

TAKE-OFF MINIMUMS: **Rwys 4, 22,** NA-Environmental.

NOTE: **Rwy 32,** Trees 2888' from departure end of runway, 1125' left of centerline, 100' AGL/1209' MSL.

OAKES, ND

OAKES MUNI (2D5)
ORIG 97142 (FAA)

TAKE-OFF MINIMUMS: **Rwy 30,** 300-1 or std. with a min. climb of 260' per NM to 1700.

OLIVIA, MN
OLIVIA RGNL (OVL)
AMDT 1 86044 (FAA)
TAKE-OFF MINIMUMS: **Rwy 11,** 300-1.

ORR, MN
ORR RGNL (ORB)
AMDT 1 80136 (FAA)
TAKE-OFF MINIMUMS: **Rwy 13,** 500-2 or std. with a min. climb of 260' per NM to 1900.

ORTONVILLE, MN
ORTONVILLE MUNI-MARTINSON FIELD (VVV)
ORIG 81274 (FAA)
TAKE-OFF MINIMUMS: **Rwy 16,** 300-1 or std. with a min. climb of 210' per NM to 1300.

OWATONNA, MN
OWATONNA DEGNER RGNL (OWA)
AMDT 2 97030 (FAA)
DEPARTURE PROCEDURE: **Rwy 12,** climb runway heading to 1500 before turning on course.

PEMBINA, ND
PEMBINA MUNI (PMB)
ORIG 85325 (FAA)
DEPARTURE PROCEDURE: **Rwy 33,** climb runway heading 3200 before turning left.

PERHAM, MN
PERHAM MUNI (16D)
ORIG 98113 (FAA)
TAKE-OFF MINIMUMS: **Rwy 12,** 500-2 or std. with a min. climb of 210' per NM to 2000. **Rwy 30,** 400-1 or std. with a min. climb of 270' per NM to 1800.
DEPARTURE PROCEDURE: **Rwy 12,** climb runway heading to 2000 before proceeding on course. **Rwy 30,** climb runway heading to 1800 before proceeding on course.

PIERRE, SD
PIERRE RGNL (PIR)
AMDT 2 85115 (FAA)
TAKE-OFF MINIMUMS: **Rwy 25,** 300-1.

PINE RIDGE, SD
PINE RIDGE (IEN)
ORIG 97226 (FAA)
TAKE-OFF MINIMUMS: **Rwy 12,** 300-1 or std. with a min. climb of 350' per NM to 3600. **Rwy 24,** 300-1 or std. with a min. climb of 220' per NM to 3500. **Rwy 30,** 300-1 or std. with a min. climb of 300' per NM to 3600.

PIPESTONE, MN
PIPESTONE MUNI (PQN)
ORIG 08045 (FAA)
TAKE-OFF MINIMUMS: **Rwys 9,27,** NA-Environmental.
NOTE: **Rwy 18,** Trees beginning 3811' from departure end of runway, 854' right of centerline, up to 100' AGL/1859' MSL.

PRESTON, MN
FILLMORE COUNTY (FKA)
ORIG 98113 (FAA)
TAKE-OFF MINIMUMS: **Rwys 11,29,** 300-1.

PRINCETON, MN
PRINCETON MUNI (PNM)
AMDT 1 05132 (FAA)
NOTE: **Rwy 15,** trees 982' from departure end of runway, 335' right of centerline, 50' AGL/1029' MSL. Trees 1449' from departure end of runway, 387' left of centerline, 50' AGL/1029' MSL. **Rwy 33,** barn 1159' from departure end of runway, 780' right of centerline, 50' AGL/1139' MSL, multiple trees, terrain, and road beginning 36' from departure end of runway, 84' right of centerline, up to 50' AGL/1045' MSL.

RAPID CITY, SD
RAPID CITY RGNL (RAP)
AMDT 6 07130 (FAA)
DEPARTURE PROCEDURE: **Rwy 5,** climb on heading between 255° clockwise to 210° from departure end of runway, or min. climb of 240' per NM to 8800 for all other courses. **Rwy 14,** climb on heading between 325° clockwise to 210° from departure end of runway, or min. climb of 245' per NM to 8900 for all other courses. **Rwy 23,** climb on heading between 210° counter clockwise to 055° from departure end of runway, or min. climb of 268' per NM to 8900 for all other courses. **Rwy 32,** climb on heading between 255° clockwise to 140° from departure end of runway, or min. climb of 242' per NM to 8800 for all other courses.
NOTE: **Rwy 5,** fence 133' from departure end of runway, 249' left of centerline, 10' AGL/3215' MSL. **Rwy 23,** hangar 201' from departure end of runway, 299' left of centerline, 24' AGL/3193' MSL. Fence 334' from departure end of runway, 256' right of centerline, 10' AGL/3184' MSL. **Rwy 32,** obstruction light 662' from departure end of runway, 243' left of centerline, 54' AGL/3213' MSL. Fence 1002' from departure end of runway, 751' right of centerline, 10' AGL/3233' MSL. Tower 1.9 NM from departure end of runway, 3503' right of centerline, 152' AGL/3520' MSL.

RAY S. MILLER AAF (KRYM)
CAMP RIPLEY, MN AMDT 2, 09155
TAKE-OFF OBSTACLES: **Rwy 13**, Terrain 1270' MSL, 73' from DER, 8' left and right of centerline. Vehicle 15' AGL/1180' MSL, 765' from DER, 638' left of centerline. **Rwy 31,** Terrain 1273' MSL, 54' from DER, 9' left and right of centerline. Trees 64' AGL/1282' MSL, 798' from DER, 325' left and right of centerline.

RED WING, MN
RED WING RGNL (RGK)
AMDT 1 01137 (FAA)
DEPARTURE PROCEDURE: **Rwy 9,** 700-4 or std. with a min. climb of 270' per NM to 1700.

REDWOOD FALLS, MN

REDWOOD FALLS MUNI (RWF)

ORIG 09071 (FAA)

TAKE-OFF MINIMUMS: **Rwys 5, 23,** NA-Environmental.

NOTE: **Rwy 12,** numerous buildings beginning 388' from DER, 376' right of centerline, up to 13' AGL/1052' MSL. Numerous fences beginning 6' from DER, 329' right of centerline, up to 13' AGL/1052' MSL. Tree 62' from DER, 444' left of centerline, 11' AGL/1040' MSL. **Rwy 30,** multiple trees beginning 865' from DER, 401' right of centerline, up to 100' AGL/1119' MSL. Vehicle on road 128' from DER, 306' right of centerline, 15' AGL/1027' MSL.

ROCHESTER, MN

ROCHESTER INTL (RST)

ORIG 09015 (FAA)

NOTE: **Rwy 2,** road 73' from departure end of runway, 385' right of centerline, 10' AGL/1292' MSL. Tree 4377' from departure end of runway, 1132' right of centerline, 100' AGL/1399' MSL. Road 268' from departure end of runway, 366' right of centerline, 10' AGL/1290' MSL. **Rwy 13,** tree 1498' from departure end of runway, 840' right of centerline, 44' AGL/1348' MSL. **Rwy 20,** pole 259' from departure end of runway, 407' right of centerilne, 23' AGL/1338' MSL. Roads beginning 1' from departure end of runway, 231' right of centerline, up to 10' AGL/1327' MSL. **Rwy 31,** tree 4760' from departure end of runway, 1103' left of centerline, 100' AGL/1389' MSL.

ROSEAU, MN

ROSEAU MUNI-RUDY BILLBERG FIELD (ROX)

ORIG 07242 (FAA)

NOTE: **Rwy 16,** building 258' from departure end of runway, 505' right of centerline, 24' AGL/1078' MSL. Tree 1582' from departure end of runway, 337' left of centerline, 47' AGL/1101' MSL. **Rwy 34,** truck on road 41' from departure end of runway, 511' left of centerline, 15' AGL/1069' MSL.

RUSHFORD, MN

RUSHFORD MUNI (55Y)

AMDT 1 96228 (FAA)

TAKE-OFF MINIMUMS: **Rwy 34,** 300-1 or std. with a min. climb of 300' per NM to 1500.

DEPARTURE PROCEDURE: **Rwy 16,** climb runway heading to 1700 before turning eastbound.

ST. CLOUD, MN

ST. CLOUD RGNL (STC)

ORIG 09239 (FAA)

TAKE-OFF MINIMUMS: **Rwy 5,** 300-1¼ or std. w/ min. climb of 201' per NM to 1300 or alternatively, with standard take-off minimums and a normal 200'/NM climb gradient, take-off must occur no later than 1100' prior to DER.

NOTE: **Rwy 5,** tower 6201' from DER, 1416' left of centerline, 149' AGL/1179' MSL. Multiple trees beginning 17' from DER, 373' right of centerline, up to 59' AGL/1081' MSL. Multiple trees beginning 1752' from DER, 56' left of centerline, up to 80' AGL/1102' MSL. **Rwy 13,** tree 1654' from DER, 884' right of centerline, 61' AGL/1078' MSL. Tree 1265' from DER, 794' left of centerline, 42' AGL/1059' MSL. **Rwy 23,** trees 2109' from DER, 29' right of centerline, up to 61' AGL/1082' MSL. Trees 1725' from DER, 93' left of centerline, up to 55' AGL/1076' MSL. Fence 74' from DER, 216' left of centerline, 2' AGL, 1023' MSL. **Rwy 31,** terrain beginning 29' from DER, 50' right of centerline, up to 1083' MSL. Terrain beginning 107' from DER, 7' left of centerline, up to 1060' MSL.

ST. JAMES, MN

ST. JAMES MUNI (JYG)

ORIG 94342 (FAA)

DEPARTURE PROCEDURE: **Rwy 15,** climb to 1900 before turning eastbound.

ST. PAUL MN

LAKE ELMO (21D)

ORIG 80318 (FAA)

TAKE-OFF MINIMUMS: **Rwy 22,** 300-1 or std. with a min. climb of 225' per NM to 1100.

ST. PAUL DOWNTOWN HOLMAN FIELD (STP)

AMDT 7 08157 (FAA)

TAKE-OFF MINIMUMS: **Rwy 9,** std. w/ min. climb of 346' per NM to 1500. **Rwy 13,** std. w/ min. climb of 266' per NM to 1500. **Rwy 14,** std. w/ min. climb of 216' per NM to 1500. **Rwy 27,** std. w/ min. climb of 436' per NM to 1500. **Rwy 31**, NA - obstacles. **Rwy 32,** std. w/ min. climb of 340' per NM to 3000.

DEPARTURE PROCEDURE: **Rwy 9,** climb heading 088° to 1500 before proceeding on course. **Rwy 13,** climb heading 125° to 1500 before proceeding on course.

Rwy 14, climb heading 143° to 1500 before proceeding on course. **Rwy 27,** climb heading 268° to 1700 before proceeding on course. **Rwy 32,** climb heading 323° to 1300 before proceeding on course.

NOTE: **Rwy 9,** multiple trees beginning 1265' from departure end of runway, 167' right of centerline, up to 75' AGL/1055' MSL. Multiple trees beginning 1.1 NM from departure end of runway, 124' left of centerline, up to 100' AGL/1099' MSL. Obstruction light tank 1571' from departure end of runway, 771' right of centerline, 50' AGL/811' MSL. Mobile crane 1163' from departure end of runway, 123' left of centerline, 50' AGL/ 758' MSL.

ST. PAUL DOWNTOWN HOLMAN FIELD (STP) (CON'T)

Rwy 13, Obstruction light stack 2695' from departure end of runway, 842' right of centerline, 50' AGL/820' MSL. Tree 1563' from departure end of runway, 25' right of centerline, 61' AGL/748' MSL. Multiple trees beginning 1004' from departure end of runway, 607' left of centerline, 50' AGL/767' MSL. Tower 1,725' from departure end of runway, 930' left of centerline, 47' AGL/753' MSL. Vent on building 3029' from departure end of runway, 629' right of centerline, 10' AGL/783' MSL. Multiple bushes beginning 194' from departure end of runway 88' left of centerline, 7' AGL/712' MSL. Stack 1,879' from departure end of runway, 25' left of centerline, 51' AGL/751' MSL. **Rwy 14,** multiple trees beginning 805' from departure end of runway, 2' right of centerline, up to 112' AGL/811' MSL. Multiple trees beginning 1205' from departure end of runway, 64' left of centerline, up to 80' AGL/770' MSL. Poles 2810' from departure end of runway 715' right of centerline, 91' AGL/778' MSL. **Rwy 27,** multiple trees beginning 803' from departure end of runway, 122' left of centerline, up to 100' AGL/994' MSL. Tree 783' from departure end of runway, 105' right of centerline, 25' AGL/725' MSL. Obstruction light antenna 996' from departure end of runway, 304' right of centerline, 67' AGL/ 767' MSL. Light pole 1328' from departure end of runway, 222' left of centerline, 50' AGL/747' MSL. Building 2049' from departure end of runway, 837' right of centerline, 57' AGL/761' MSL. Flagpole 2333' from departure end of runway, 199' left of centerline, 78' AGL/778' MSL. Stack 1.8 NM from departure end of runway, 635' left of centerline, 569' AGL/1279' MSL.

Rwy 32, road and vehicle 211' from departure end of runway, 482' left of centerline, 17' AGL/717' MSL. Railroad beginning 369' from departure end of runway, 329' left of centerline, up to 23' AGL/727' MSL. Pipe on DME 383' from departure end of runway, 269' right of centerline, 17' AGL/722' MSL. Tree 1152' from departure end of runway, 209' left of centerline, 44' AGL/744' MSL. Tree 1685' from departure end of runway, 277' right of centerline, 75' AGL/770' MSL. Sign 5668' from departure end of runway, 1924' left of centerline, 86' AGL/874' MSL. Trees 5614' from departure end of runway, 1796' right of centerline, 100' AGL/939' MSL. Building 5779' from departure end of runway, 1733' right of centerline, 72' AGL/910' MSL. Pole 1.0 NM from departure end of runway, 1835' right of centerline, 157' AGL/973' MSL. Building 1.1 NM from departure end of runway, 2170' left of centerline, 122' AGL/886' MSL. Multiple buildings beginning 1.1 NM from departure end of runway, 378' left of centerline, up to 142' AGL/918' MSL

SILVER BAY, MN

SILVER BAY MUNI (BFW)
ORIG 93035 (FAA)

TAKE-OFF MINIMUMS: **Rwys 7, 25,** 300-1.

SIOUX FALLS, SD

JOE FOSS FIELD (FSD)
AMDT 7 07242 (FAA)

TAKE-OFF MINIMUMS: **Rwy 15,** 200-1 or std. w/ min. climb of 404' per NM to 1700. **Rwy 33,** 200-1¼ or std. w/ min. climb of 343' per NM to1700.

DEPARTURE PROCEDURE: **Rwy 3,** climb heading 030° to 2300 before turning eastbound. **Rwy 9,** climb heading 098° to 2000, then left turn direct FSD VORTAC. **Rwy 15,** climb heading 150° to 2000, then right turn direct FSD VORTAC. **Rwy 21,** climb heading 210° to 2200 before turning eastbound. **Rwy 27,** climb heading 278° to 2100 before turning eastbound. **Rwy 33,** climb heading 330° to 2200 before turning eastbound.

NOTE: **Rwy 9,** antenna 2238' from departure end of runway, 919' right of centerline, 87' AGL/1506' MSL. Pole 1256' from departure end of runway, 23' left of centerline, 43' AGL/1464' MSL. Windsock 331' from departure end of runway, 582' right of centerline, 14' AGL/1433' MSL. **Rwy 15,** antenna 3056' from departure end of runway, 983' left of centerline 117' AGL/1576' MSL. Multiple trees beginning 1211' from departure end of runway, 471' left of centerline, up to 38' AGL/1477' MSL. Tower 3102' from departure end of runway, 972' left of centerline, 61' AGL/1520' MSL. Trees and pole beginning 1746' from departure end of runway, 316' right of centerline, up to 87' AGL/1516' MSL. **Rwy 21,** multiple trees beginning 428' from departure end of runway, 522' right of centerline, up to 75' AGL/1497' MSL. **Rwy 27,** multiple trees beginning 2528' from departure end of runway, 1027' left of centerline, up to 100' AGL/1509' MSL. **Rwy 33,** 2 lighted radio towers 3639' from departure end of runway, 894' left of centerline, 88' AGL/1585' MSL, multiple trees beginning 5370' from departure end of runway, 891' left of centerline, up to 175' AGL/1603' MSL, pole 5724' from departure end of runway, 1701' left of centerline, 45' AGL/1594' MSL.

SPEARFISH, SD

BLACK HILLS-CLYDE ICE FIELD (SPF)

TAKE-OFF MINIMUMS: **Rwys 3, 8, 21, 35,** 700-2 (NA at night.). **Rwy 13,** 900-2 or std. with a min. climb of 300' per NM to 5400. **Rwy 17,** NA. **Rwys 26, 31,** 700-2 or std. with a min. climb of 370' per NM to 4700.

DEPARTURE PROCEDURE: **Rwys 3, 8,** turn left. Climb to 6500, intercept the 046° bearing outbound from SPF NDB. Thence... **Rwy 13,** climb runway heading to 4300, then climbing left turn to 6500 via heading 360° to intercept the 046° bearing outbound from SPF NDB. Thence... **Rwys 21, 35,** turn right. Climb to 6500 intercept the 046° bearing outbound from SPF NDB. Thence... **Rwy 26,** climbing right turn to 6500 via heading 330°, intercept the 297° bearing outbound from SPF NDB. Thence... **Rwy 31,** after take-off, intercept 297° bearing outbound from SPF NDB. Climb to 6500. Thence... THENCE...Continue climb to enroute MEA's before proceeding on course.

STAPLES, MN

STAPLES MUNI (SAZ)
AMDT 2 87211 (FAA)

TAKE-OFF MINIMUMS: **Rwy 14,** 400-2.

STURGIS, SD
STURGIS MUNI (49B)
ORIG 96284 (FAA)
DEPARTURE PROCEDURE: **Rwy 11,** climb runway heading to 6000, then direct RAP VORTAC. **Rwy 29,** climb runway heading to 5000, then climbing right turn to 6000 direct RAP VORTAC.

THIEF RIVER FALLS, MN
THIEF RIVER FALLS RGNL (TVF)
ORIG 09071 (FAA)
NOTE: **Rwy 3,** trees beginning 3058' from DER, 678' right of centerline, up to 100' AGL/1229' MSL. **Rwy 13,** trees beginning 565' from DER, 372' left of centerline, up to 100' AGL/1214' MSL. Trees beginning 1337' from DER, 531' right of centerline, up to 100' AGL/1209' MSL. **Rwy 21,** trees beginning 214' from DER, 544' right of centerline, up to 100' AGL/1204' MSL. Trees beginning 2185' from DER, 33' left of centerline, up to 100' AGL/1209' MSL. **Rwy 31,** trees beginning 126' from DER, 410' right of centerline, up to 100' AGL/1214' MSL. Trees beginning 199' from DER, 413' left of centerline, up to 100' AGL/1209' MSL. Trees beginning 1204' from DER, 449' right of centerline, up to 100' AGL/1199' MSL. Trees beginning 1579' from DER, 495' left of centerline, up to 100' AGL/1214' MSL.

TIOGA, ND
TIOGA MUNI (D60)
ORIG 09239 (FAA)
TAKE-OFF MINIMUMS: **Rwys 3, 21,** NA-Environmental.
NOTE: **Rwy 12,** vehicle on road 1243' from DER, 78' left of centerline, 15' AGL/2304' MSL. Vehicle on road, tree and pole beginning 618' from DER, 50' right of centerline, up to 100' AGL/2419' MSL. Ground 21' from DER, 481' right of centerline, 2272' MSL. **Rwy 30,** vehicle on road 1' from DER, 144' left of centerline, 15' AGL/2256' MSL.

TOWER, MN
TOWER MUNI (12D)
ORIG 09127 (FAA)
TAKE-OFF MINIMUMS: **Rwy 8,** NA - Obstacles.
NOTE: **Rwy 26,** tree 2315' from DER, 700' right of centerline, 100' AGL/1479' MSL.

VALLEY CITY, ND
BARNES COUNTY MUNI (6D8)
ORIG 10098 (FAA)
NOTE: **Rwy 13,** vehicle on road, 111' from DER, 356' right of centerline, 15' AGL/1396' MSL. Trees beginning 644' from DER, 242' right of centerline, up to 40' AGL/1421' MSL. **Rwy 31,** terrain beginning 32' from DER, 20' right of centerline, up to 1424' MSL. Vehicle on road 38' from DER, 285' right of centerline, 15' AGL/1418' MSL. Fence 71' from DER, 292' left of centerline, 4' AGL/1407' MSL. Terrain beginning 120' from DER, 125' left of centerline, up to 1447' MSL. Fence 198' from DER, 299' right of centerline, 4' AGL/1408' MSL. Trees beginning 365' from DER, 10' left of centerline, up to 40' AGL/1457' MSL. Tree 545' from DER, 607' right of centerline, 16' AGL/1436' MSL.

VERMILLION, SD
HAROLD DAVIDSON FIELD (VMR)
AMDT 1 09239 (FAA)
NOTE: **Rwy 12,** road 1' from DER, 200' right of centerline, up to 15' AGL/1156' MSL. Multiple trees beginning 541' from DER, 366' right of centerline, up to 62' AGL/1202' MSL. **Rwy 30,** road 79' from DER 342' left of centerline 15' AGL/1155' MSL. Road 200' from DER, 450' right of centerline, 15' AGL/1160' MSL. Fence 199' from DER, 347' left of centerline, 6' AGL/1150' MSL.

WAHPETON, ND
HARRY STERN (BWP)
ORIG 93259 (FAA)
TAKE-OFF MINIMUMS: **Rwy 3**, 300-1.

WARREN, MN
WARREN MUNI (D37)
ORIG 02108 (FAA)
DEPARTURE PROCEDURE: **Rwy 30,** climb runway heading to 1400 before turning on course.

WARROAD, MN
WARROAD INTL MEMORIAL (RRT)
ORIG 08101 (FAA)
TAKE-OFF MINIMUMS: **Rwys 4, 22,** NA-Environmental.

WASECA, MN
WASECA MUNI (ACQ)
ORIG 09015 (FAA)
NOTE: **Rwy 15,** tree 560' from departure end of runway, 560' right of centerline, 100' AGL/1239' MSL. Terrain beginning 172' from departure end of runway, on centerline, up to 1149' MSL. **Rwy 33,** tree 5042' from departure end of runway, 1533' right of centerline, 100' AGL/1259' MSL.

WATERTOWN, SD
WATERTOWN RGNL (ATY)
ORIG 07242 (FAA)
NOTE: **Rwy 12,** tree 2015' from departure end of runway, 328' right of centerline, 100' AGL/1783' MSL. **Rwy 30,** trees 2149' from departure end of runway, 10' right of centerline, 51' AGL/1810' MSL. Tree 2200' from departure end of runway, 441' left of centerline, 70' AGL/1810' MSL. Tree 2082' from departure end of runway, 121' right of centerline, 55' AGL/1806' MSL.

WATFORD CITY, ND
WATFORD CITY MUNI (S25)
ORIG 98225 (FAA)
TAKE-OFF MINIMUMS: **Rwy 30,** 400-1 or std. with a min. climb of 340' per NM to 2600. **Rwy 12,** 300-1 or std. with a min climb of 300' per NM to 2600.

WHEATON, MN
WHEATON MUNI (ETH)
AMDT 1 92177 (FAA)
TAKE-OFF MINIMUMS: **Rwy 16,** 300-1. **Rwys 4, 22,** NA.

WILLISTON, ND
SLOULIN FIELD INTL (ISN)
AMDT 3 00251 (FAA)
TAKE-OFF MINIMUMS: **Rwy 29,** 300-1or std. with a min. climb of 270' per NM to 2300.
DEPARTURE PROCEDURE: **Rwy 20,** climb runway heading to 2300 before turning westbound.

WILLMAR, MN
WILLMAR MUNI-JOHN L. RICE FIELD (BDH)
ORIG 06327 (FAA)
NOTE: **Rwy 31,** tree 1338' from departure end of runway, 740' left of centerline, 67' AGL/1193' MSL.

WINNER, SD
WINNER RGNL (ICR)
AMDT 3 09127 (FAA)
TAKE-OFF MINIMUMS: **Rwys 3, 21,** NA-Environmental.

WINONA, MN
WINONA MUNI-MAX CONRAD FIELD (ONA)
AMDT 3 96228 (FAA)
TAKE-OFF MINIMUMS: **Rwy 12,** 300-1 or std. with a min. climb of 320' per NM to 800. **Rwy 17,** 600-1 or std. with a min. climb of 500' per NM to 1300. **Rwy 30,** 500-1 or std. with a min. climb of 500' per NM to 1200. **Rwy 35,** 700-1 or std. with a min. climb of 390' per NM to 1500.
DEPARTURE PROCEDURE: **Rwy 12,** climb to 1900 via ONA R-110 before turning. **Rwys 17, 30, 35,** climb runway heading to 1900 before turning.

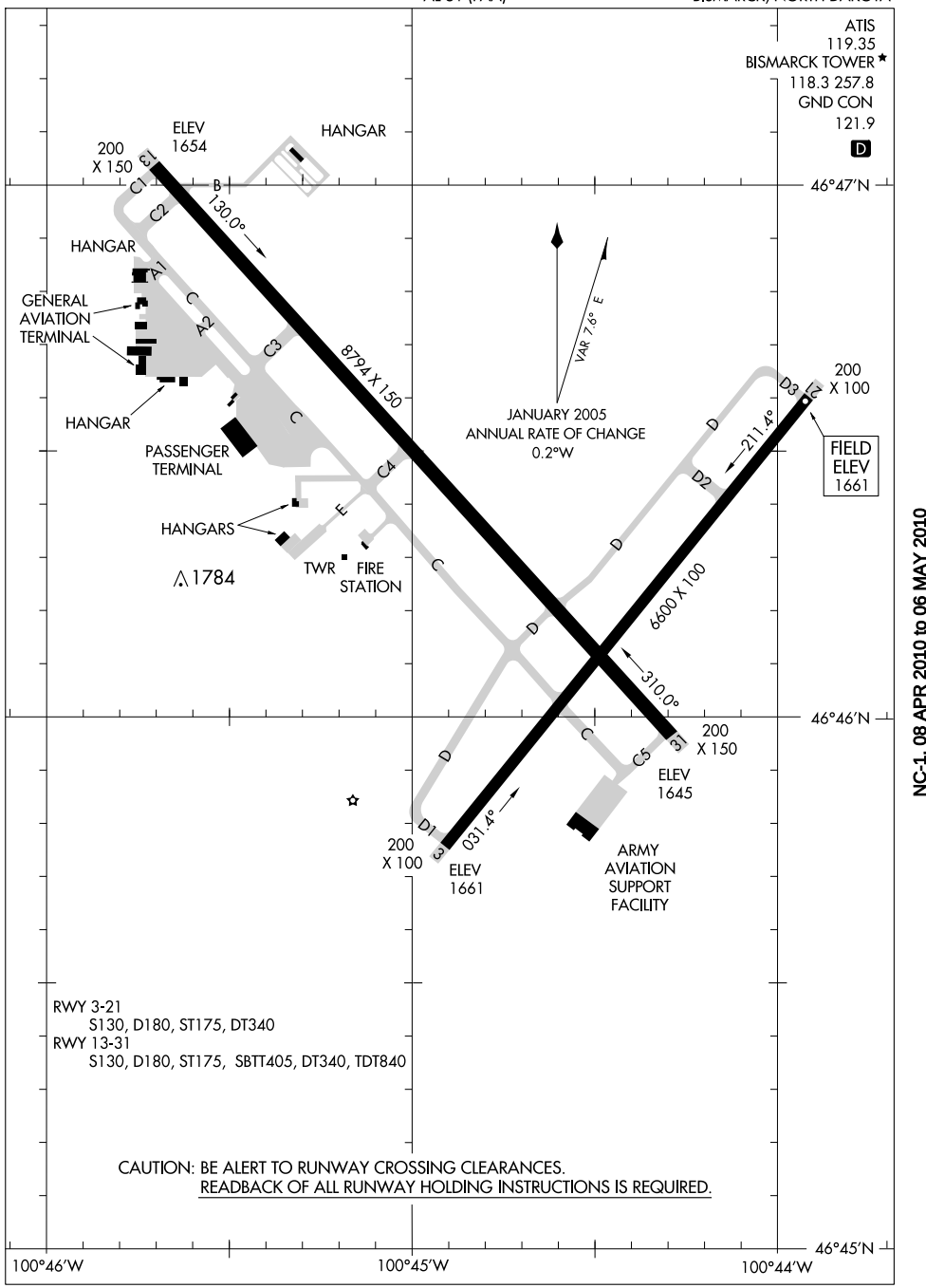
WORTHINGTON, MN
WORTHINGTON MUNI (OTG)
AMDT 2 88154 (FAA)
TAKE-OFF MINIMUMS: **Rwy 17,** 300-1.
DEPARTURE PROCEDURE: **Rwys 11, 17, 29, 35,** when weather is below 800-1 climb runway heading to 2400 before turning.

YANKTON, SD
CHAN GURNEY MUNI (YKN)
AMDT 2 85003 (FAA)
TAKE-OFF MINIMUMS: **Rwy 31,** 300-1.
DEPARTURE PROCEDURE: **Rwys 1, 13, 19, 31,** climb runway heading to 2400 before turning.

AIRPORT DIAGRAM

AL-51 (FAA)

BISMARCK MUNI (BIS)
BISMARCK, NORTH DAKOTA



RWY 3-21
S130, D180, ST175, DT340
RWY 13-31
S130, D180, ST175, SBTT405, DT340, TDT840

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

NC-1, 08 APR 2010 to 06 MAY 2010

LOC I-BIS	APP CRS	Rwy Idg	8794
110.3	307°	TDZE	1645
		Apt Elev	1661

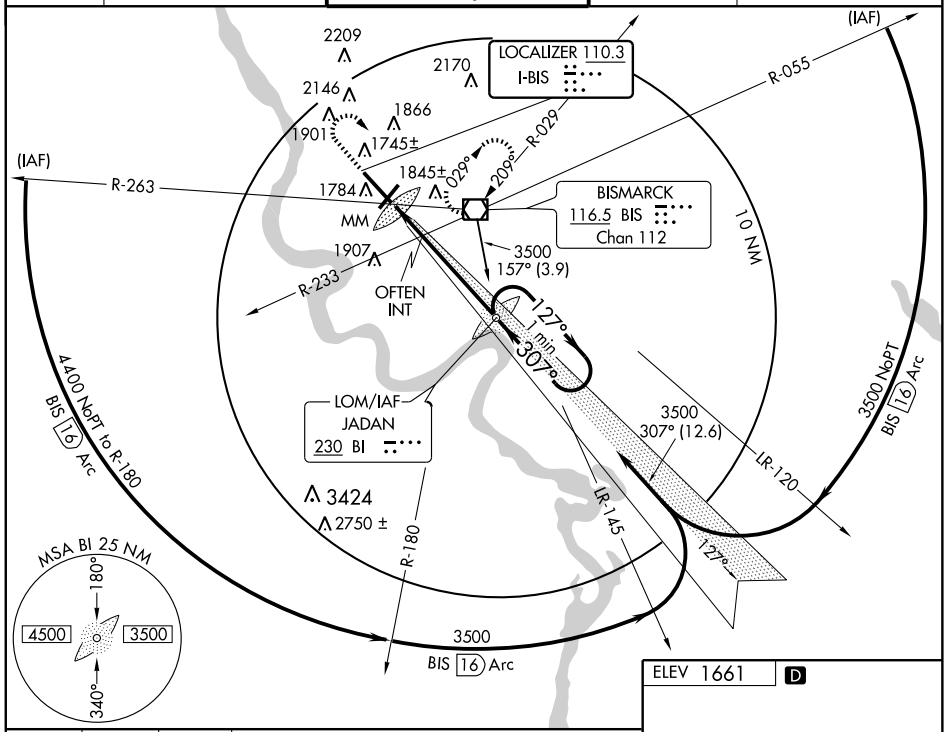
ILS or LOC RWY 31

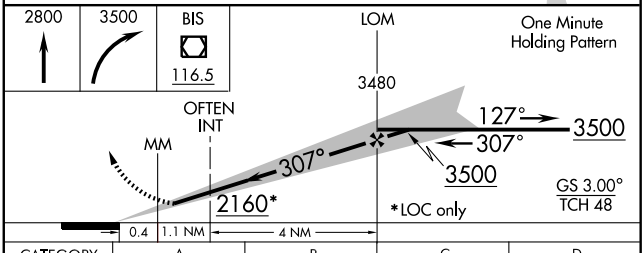
BISMARCK MUNI (BIS)

T A ASR — OFTEN INT Cat D increase visibility to 5000 for inoperative MALSR. **RVR 1800 authorized with the use of FD or AP or HUD to DA.

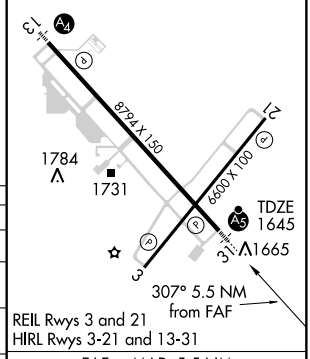
MALSR — MISSED APPROACH: Climb to 2800 then climbing right turn to 3500 direct BIS VOR/DME and hold.

ATIS	BISMARCK APP CON★	BISMARCK TOWER★	GND CON	UNICOM
119.35	126.3 298.9	118.3 (CTAF) 257.8	121.9	122.95





CATEGORY	A	B	C	D
S-ILS 31	** 1844/24 200 (200-½)			
S-LOC 31	2160/24 515 (500-½)		2160/50 515 (500-1)	2160/60 515 (500-1¼)
CIRCLING	2180-1 519 (600-1)	2200-1 539 (600-1)	2220-1½ 559 (600-1½)	2240-2 579 (600-2)
OFTEN INT MINIMUMS				
S-LOC 31	1980/24 335 (400-½)			1980/40 335 (400-¾)



FAF to MAP 5.5 NM

Knots	60	90	120	150	180
Min:Sec	5:30	3:40	2:45	2:12	1:50

NC-1. 08 APR 2010 to 06 MAY 2010

BISMARCK, NORTH DAKOTA

LOC I-BZX	APP CRS	Rwy ldg	8794
111.5	127°	TDZE	1655
		Apt Elev	1661

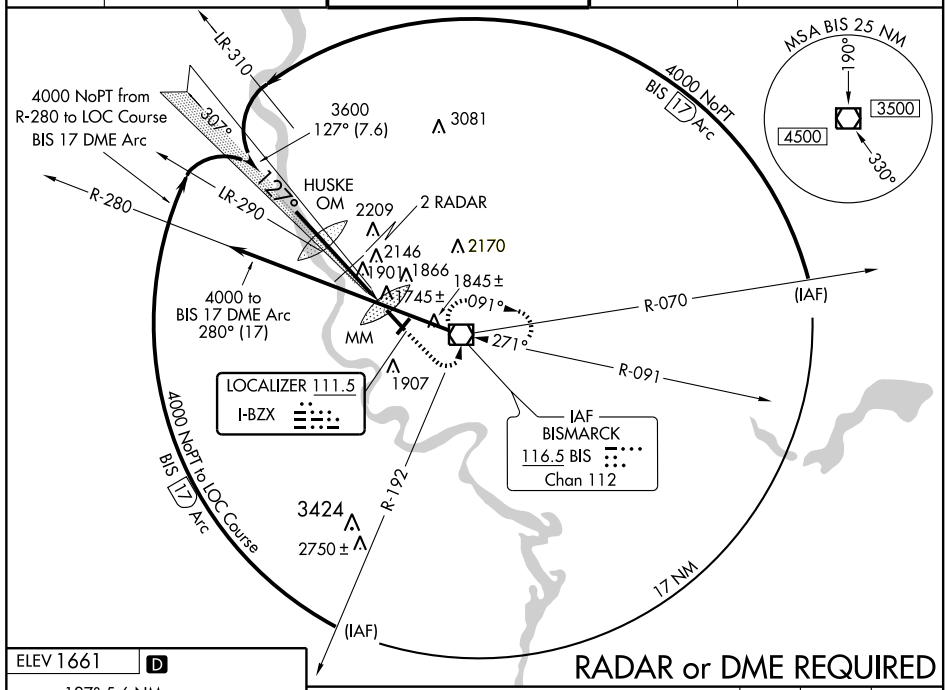
ILS RWY 13
BISMARCK MUNI (BIS)

T A ASR — Inoperative table does not apply to MALS Rwy 13.

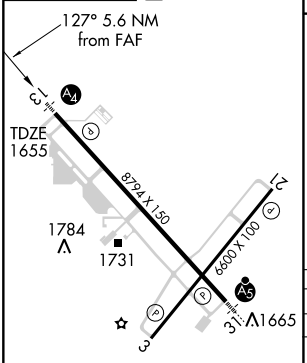
MALS

MISSED APPROACH: Climb to 2500 then climbing left turn to 3600 direct BIS VOR/DME and hold.

ATIS	BISMARCK APP CON★	BISMARCK TOWER★	GND CON	UNICOM
119.35	126.3 298.9	118.3 (CTAF) L 257.8	121.9	122.95

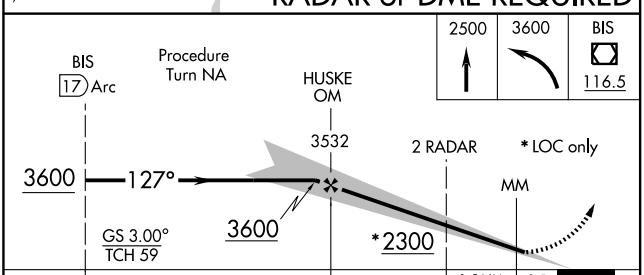


RADAR or DME REQUIRED



REIL Rwys 3 and 21
HIRL Rwys 3-21 and 13-31

FAF to MAP 5.6 NM					
Knots	60	90	120	150	180
Min:Sec	5:36	3:44	2:48	2:14	1:52



CATEGORY	A	B	C	D
S-ILS 13	1854-¾ 200 (200-¾)			
S-LOC 13	2300-1 645 (700-1)		2300-1¾ 645 (700-1¾)	2300-2 645 (700-2)
CIRCLING	2300-1 639 (700-1)		2300-1¾ 639 (700-1¾)	2300-2 639 (700-2)
RADAR FIX MINIMUMS				
S-LOC 13	2100-1 445 (500-1)		2100-1¼ 445 (500-1¼)	2100-1½ 445 (500-1½)

NC-1, 08 APR 2010 to 06 MAY 2010

WAAS	APP CRS	Rwy Idg	6600
CH 63099	028°	TDZE	1661
W03A		Apt Elev	1661

RNAV (GPS) RWY 3

BISMARCK MUNI (BIS)

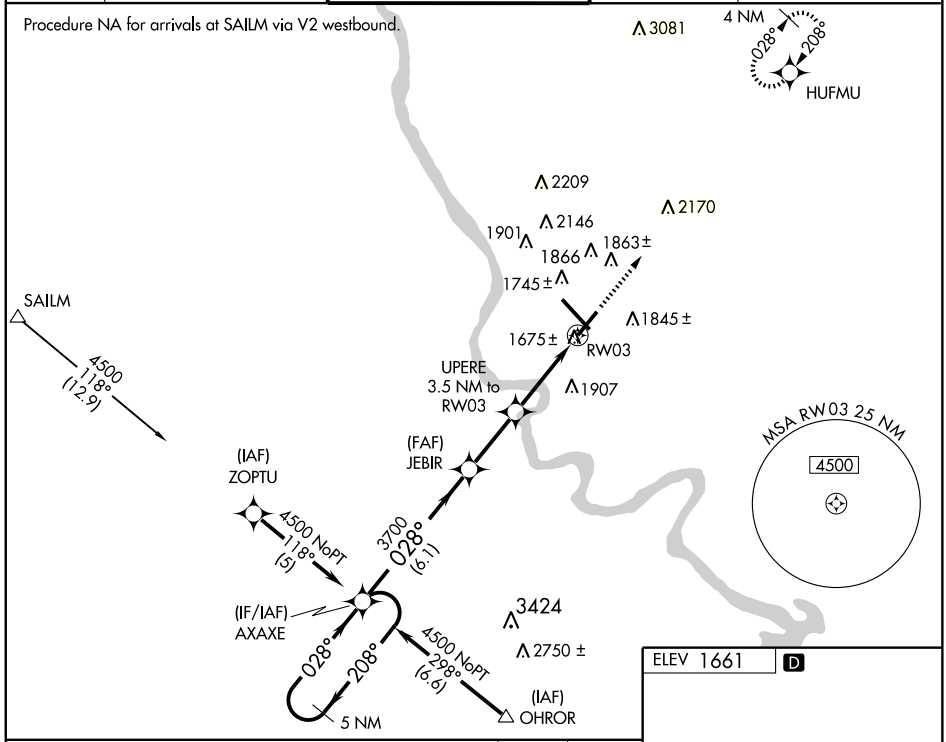
T ASR

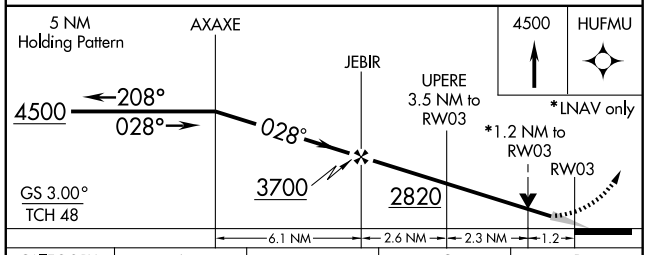
If local altimeter setting not received procedure NA.
Baro-VNAV NA below -18°C (0°F).
DME/DME RNP-0.3 NA.

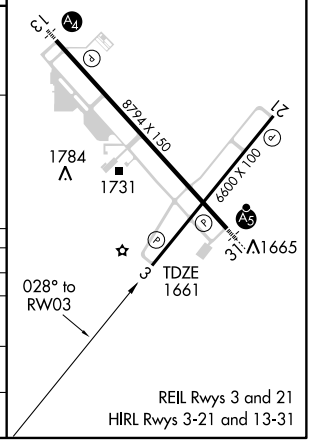
MISSED APPROACH: Climb to 4500 direct HUFMU and hold.

ATIS	BISMARCK APP CON ★	BISMARCK TOWER ★	GND CON	UNICOM
119.35	126.3 298.9	118.3 (CTAF) L 257.8	121.9	122.95

Procedure NA for arrivals at SAILM via V2 westbound.







CATEGORY	A	B	C	D
LPV DA	1911-¾ 250 (300-¾)			
LNAV/VNAV DA	2264-2 603 (700-2)			
LNAV MDA	2080-1 419 (500-1)		2080-1¼ 419 (500-1¼)	
CIRCLING	2240-2 579 (600-2)			2320-2 659 (700-2)

NC-1. 08 APR 2010 to 06 MAY 2010

APP CRS	Rwy Idg	6600
208°	TDZE	1661
	Apt Elev	1661

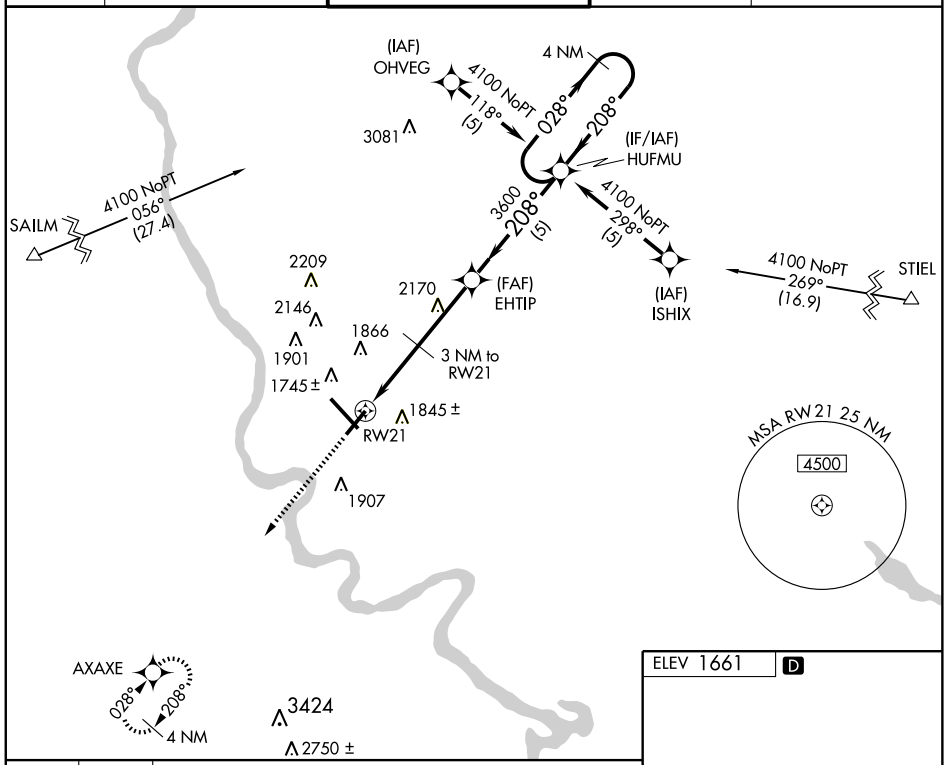
RNAV (GPS) RWY 21
BISMARCK MUNI (BIS)

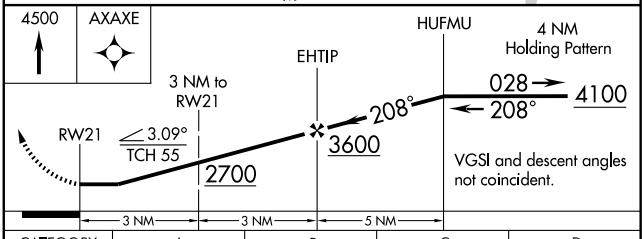
T
NA
ASR

GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.

MISSED APPROACH: Climb to 4500 direct AXAXE WP and hold.

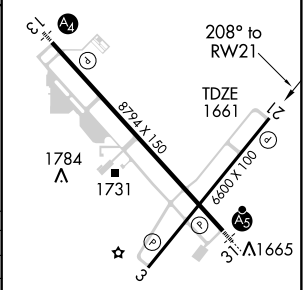
ATIS	BISMARCK APP CON★	BISMARCK TOWER★	GND CON	UNICOM
119.35	126.3 298.9	118.3 (CTAF) L 257.8	121.9	122.95





CATEGORY	A	B	C	D
GLS DA	NA			
LNAV/VNAV DA	NA			
LNAV MDA	2120-1 459 (500-1)		2120-1¼ 459 (500-1¼)	2120-1½ 459 (500-1½)
CIRCLING	2180-1 519 (600-1)	2200-1 539 (600-1)	2220-1½ 559 (600-1½)	2240-2 579 (600-2)

ELEV 1661 D



REIL Rwys 3 and 21
HIRL Rwys 3-21 and 13-31

NC-1. 08 APR 2010 to 06 MAY 2010

WAAS	APP CRS	Rwy Idg	8794
CH 56599	307°	TDZE	1645
W31A		Apt Elev	1661

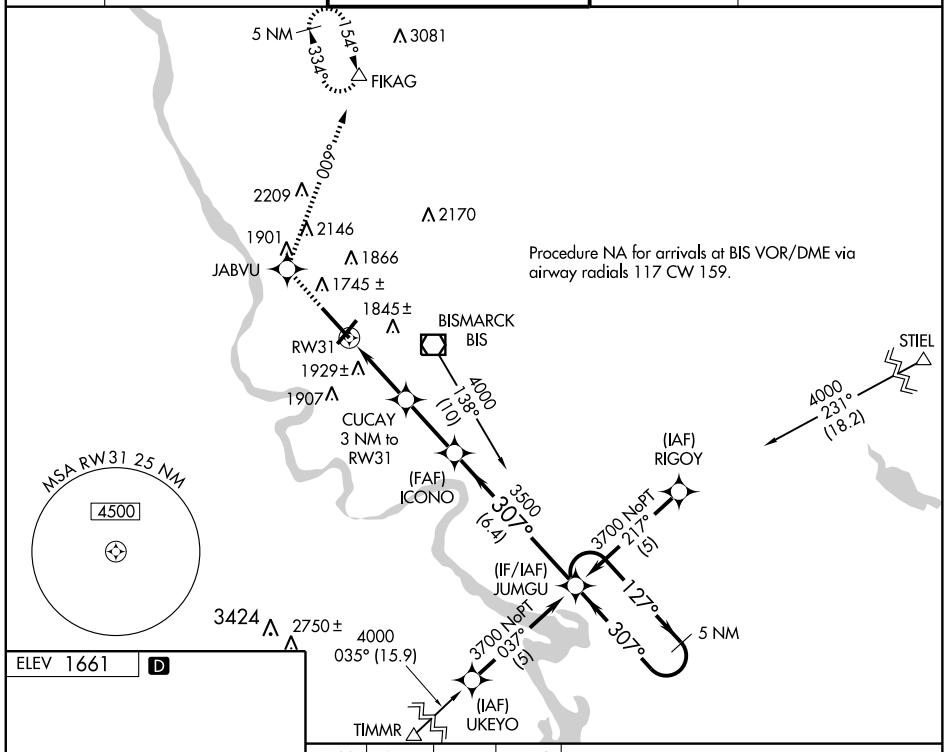
RNAV (GPS) RWY 31
BISMARCK MUNI (BIS)

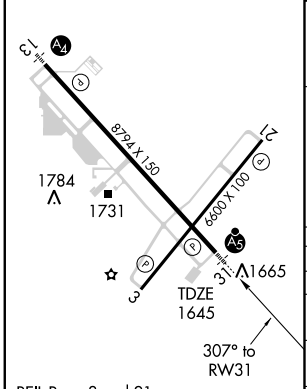
ASR For inoperative MALSR, increase LPV all Cats visibility to 1. Baro-VNAV NA below -18°C (0°F). DME/DME RNP-0.3 NA. If local altimeter setting not received, procedure NA.

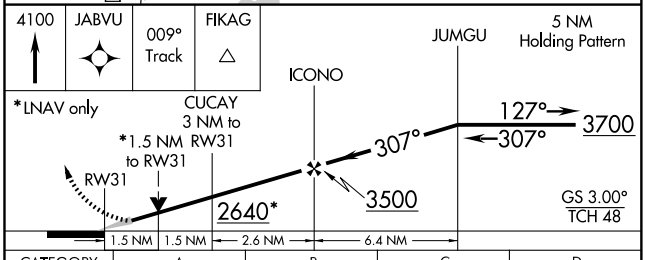
MALSR

MISSED APPROACH: Climb to 4100 direct JABVU and via 009° track to FIKAG and hold.

ATIS	BISMARCK APP CON★	BISMARCK TOWER★	GND CON	UNICOM
119.35	126.3 298.9	118.3 (CTAF) 257.8	121.9	122.95







CATEGORY	A	B	C	D
LPV DA	1909/24 264 (300-½)			
LNAV/VNAV DA	2268-1¾ 623 (700-1¾)			
LNAV MDA	2180/24 535 (600-½)		2180/50 535 (600-1)	2180/60 535 (600-1¼)
CIRCLING	2280-1 619 (700-1)		2280-1¾ 619 (700-1¾)	2320-2 659 (700-2)

NC-1. 08 APR 2010 to 06 MAY 2010

BISMARCK, NORTH DAKOTA

VOR/DME BIS	APP CRS	Rwy Idg	N/A
116.5	271°	TDZE	N/A
Chan 112		Apt Elev	1661

AL-51 (FAA)

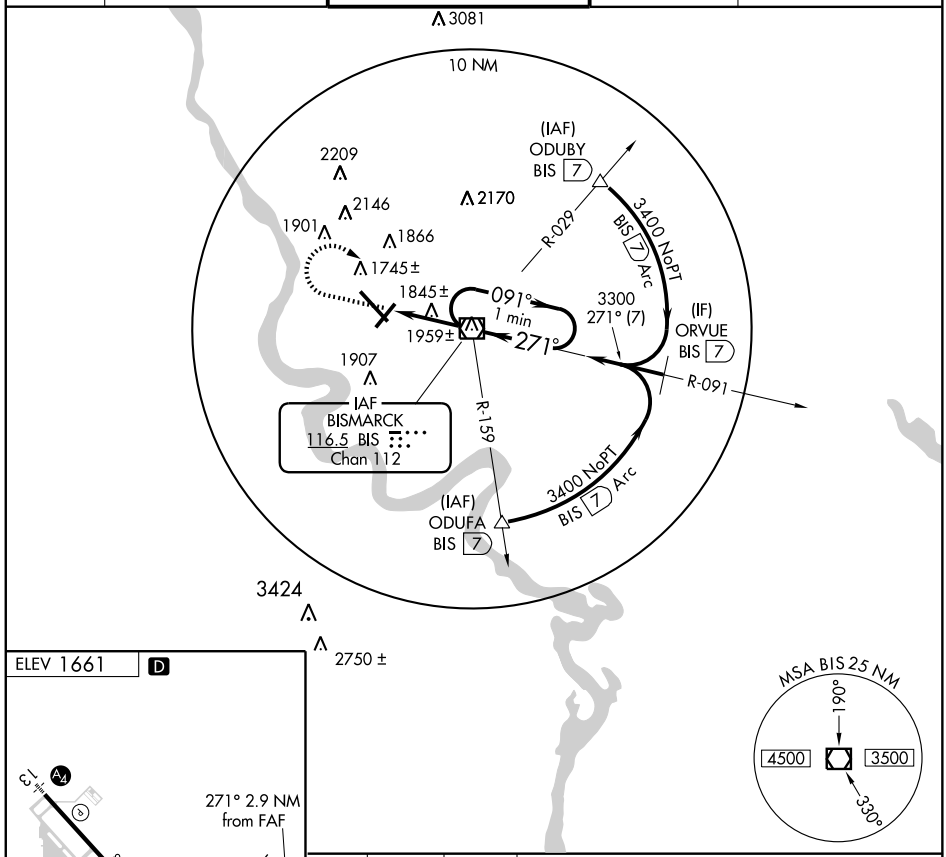
VOR-A

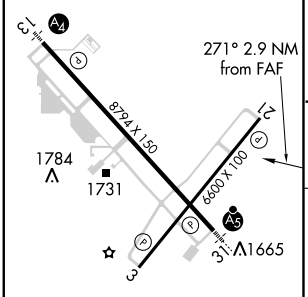
BISMARCK MUNI (BIS)

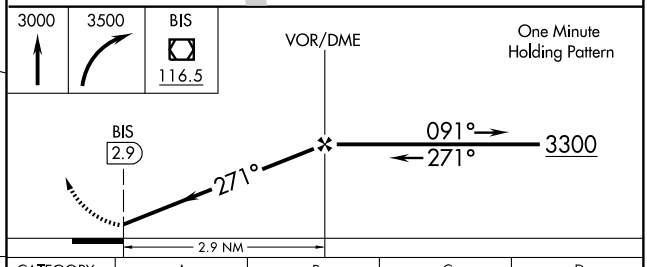
T ASR — If local altimeter setting not received procedure not authorized.

MISSED APPROACH: Climb to 3000 then climbing right turn to 3500 direct BIS VOR/DME and hold.

ATIS	BISMARCK APP CON ★	BISMARCK TOWER ★	GND CON	UNICOM
119.35	126.3 298.9	118.3 (CTAF) 257.8	121.9	122.95







FAF to MAP 2.9 NM					
Knots	60	90	120	150	180
Min:Sec	2:54	1:56	1:27	1:10	0:58

CATEGORY	A	B	C	D
CIRCLING	2240-1	579 (600-1)	2240-1½ 579 (600-1½)	2320-2 659 (700-2)

NC-1. 08 APR 2010 to 06 MAY 2010

APP CRS	Rwy Idg	3699
307°	TDZE	1673
	Apt Elev	1679

GPS RWY 31
BOTTINEAU MUNI (D09)

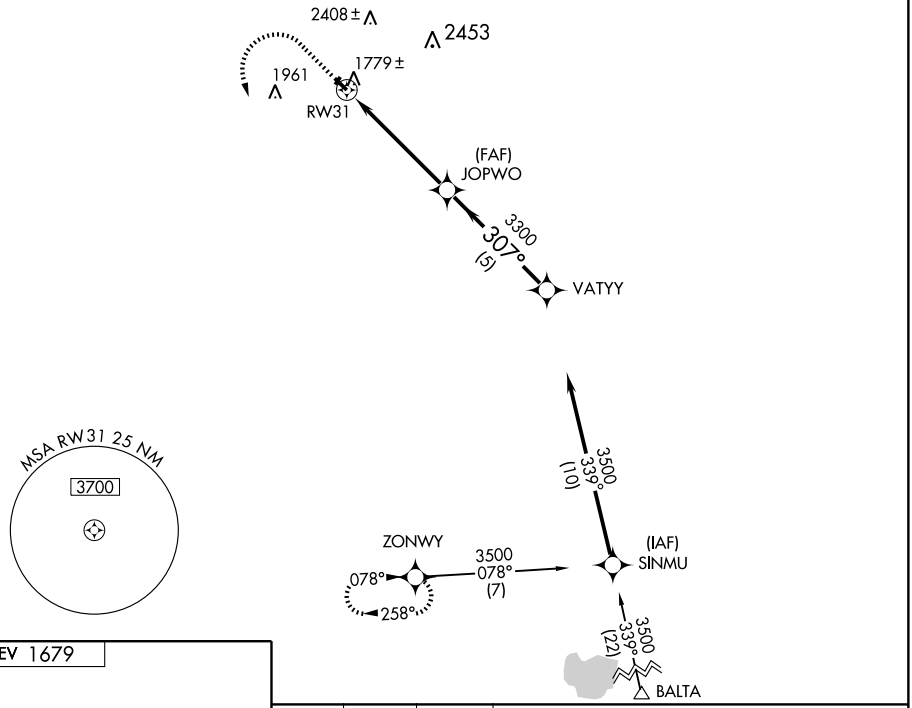
Use Minot Air Force Base altimeter setting, if not received; use Devils Lake altimeter setting.

NA

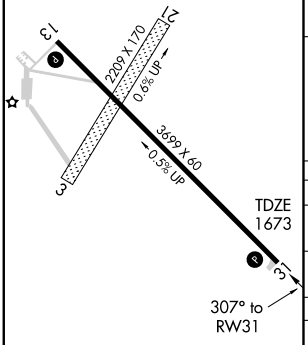
MISSED APPROACH: Climb to 2900 then climbing left turn to 3500 direct ZONWY WP and hold.

MINOT APP CON ★
119.6 363.8

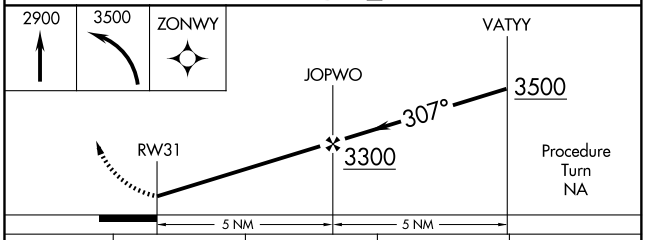
UNICOM
122.8 (CTAF) L



ELEV 1679



MIRL Rwy 13-31 L



CATEGORY	A	B	C	D
S-31	2140-1 467 (500-1)		NA	
CIRCLING	2200-1 521 (600-1)		NA	
DEVILS LAKE ALTIMETER SETTING MINIMUMS				
S-31	2240-1 567 (600-1)		NA	
CIRCLING	2300-1 621 (700-1)		NA	

NC-1. 08 APR 2010 to 06 MAY 2010

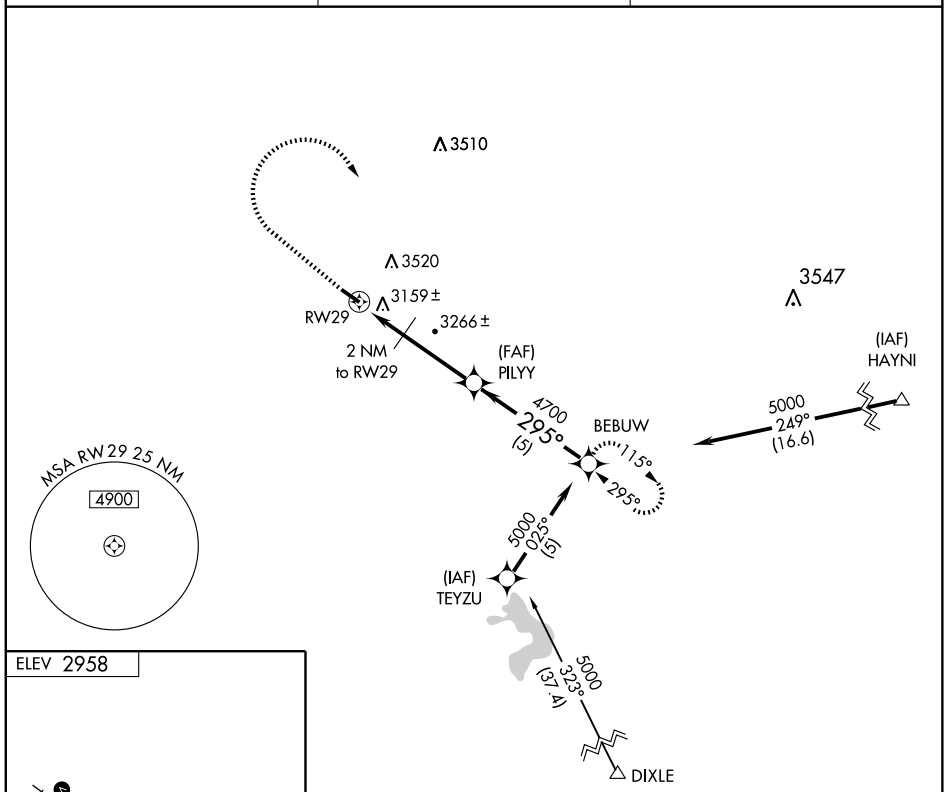
APP CRS		
295°	Rwy Idg	4800
	TDZE	2958
	Apt Elev	2958

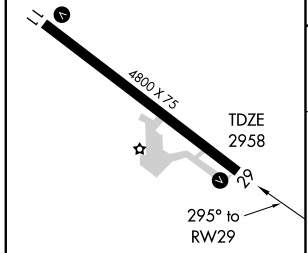
GPS RWY 29
BOWMAN MUNI (BPP)

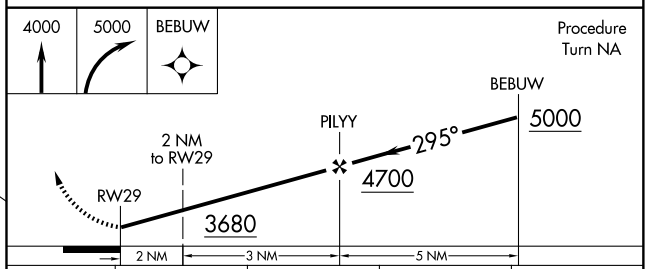
NA

MISSED APPROACH: Climb to 4000 then climbing right turn to 5000 direct BEBUW WP and hold.

AWOS-3	GRAND FORKS RADIO	UNICOM
374	122.4	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-29	3420-1 462 (500-1)		3420-1¼ 462 (500-1¼)	NA
CIRCLING	3520-1 562 (600-1)	3600-1 642 (700-1)	3800-2½ 842 (900-2½)	NA

MIRL Rwy 11-29 L

NC-1. 08 APR 2010 to 06 MAY 2010

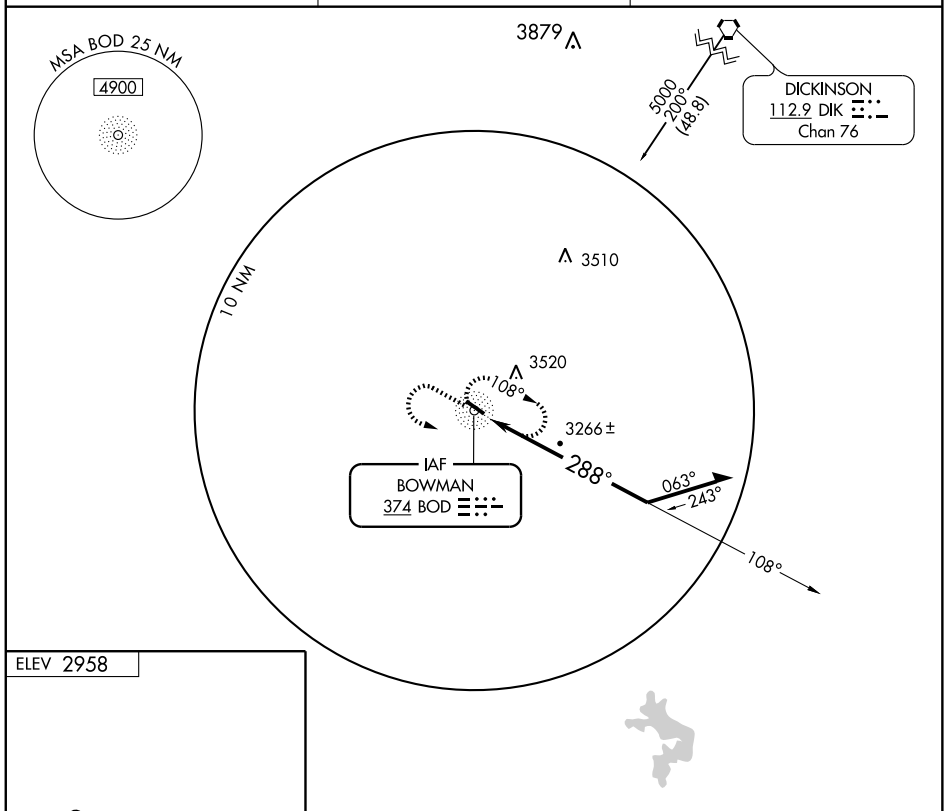
NDB BOD	APP CRS	Rwy Idg	4800
374	288°	TDZE	2958
		Apt Elev	2958

NDB RWY 29
BOWMAN MUNI (BPP)

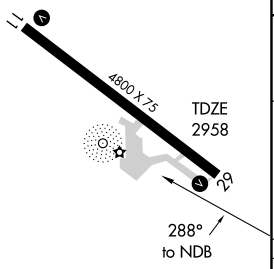
NA

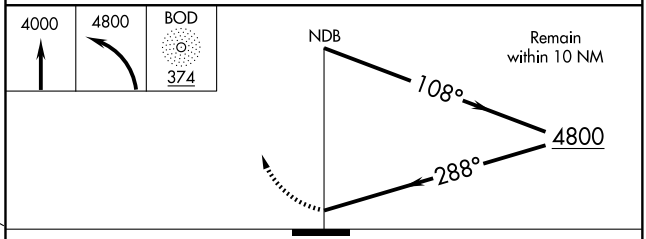
MISSED APPROACH: Climb to 4000 then climbing left turn to 4800 direct BOD NDB and hold.

AWOS-3	GRAND FORKS RADIO	UNICOM
374	122.4	122.8 (CTAF) L



ELEV 2958





CATEGORY	A	B	C	D
S-29	3620-1	662 (700-1)	3620-1 ¾ 662 (700-1¾)	NA
CIRCLING	3620-1	662 (700-1)	3800-2 ½ 842 (900-2½)	NA

MIRL Rwy 11-29 L

NC-1. 08 APR 2010 to 06 MAY 2010

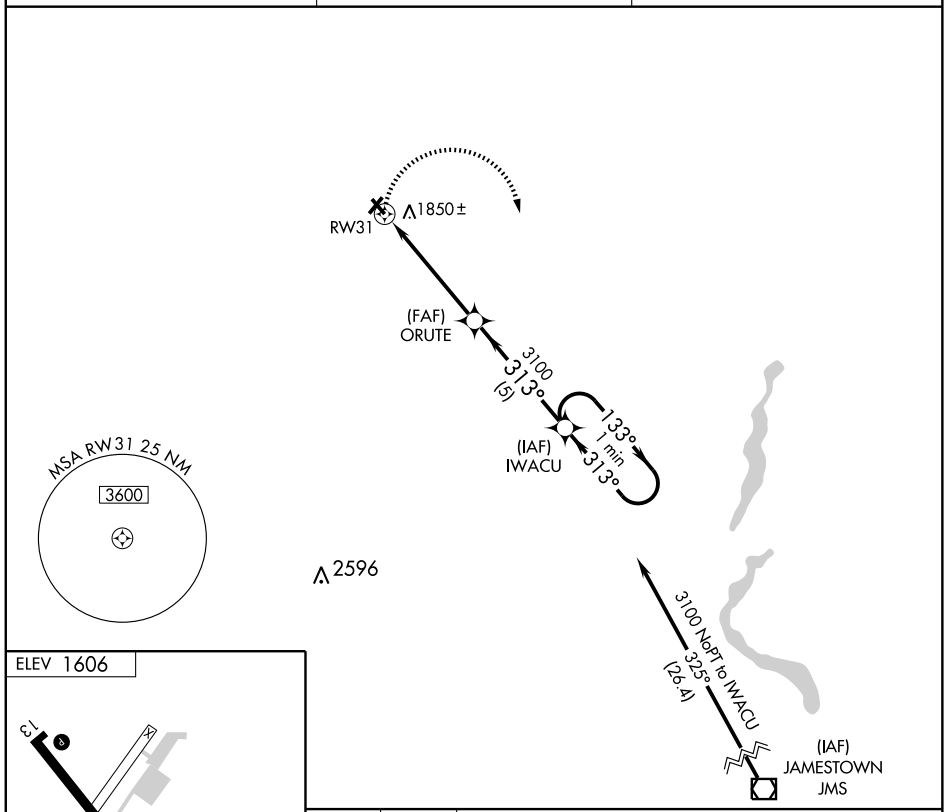
APP CRS	Rwy Idg	4198
313°	TDZE	1604
	Apt Elev	1606

GPS RWY 31
CARRINGTON MUNI (46D)

NA — Use Jamestown altimeter setting. Procedure NA at night.

MISSED APPROACH: Climbing right turn to 3100 direct IWACU WP and hold.

AWOS-3	MINNEAPOLIS CENTER	CTAF
118.575	124.2 270.3	122.9 L



CATEGORY	A	B	C	D
S-31	2200-1	596 (600-1)	2200-1½ 596 (600-1½)	NA
CIRCLING	2300-1	694 (700-1)	2300-2 694 (700-2)	NA

NC-1, 08 APR 2010 to 06 MAY 2010

APP CRS	Rwy Idg	3900
128°	TDZE	933
	Apt Elev	933

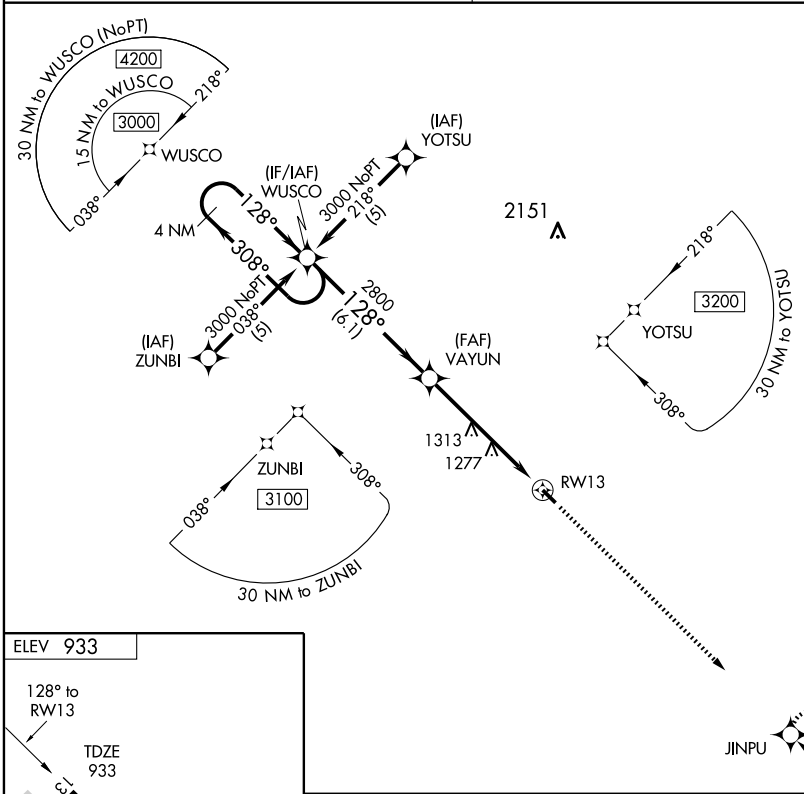
RNAV (GPS) RWY 13

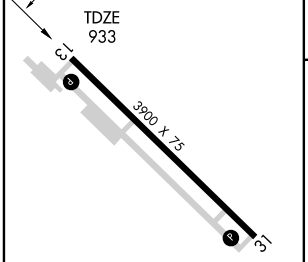
CASSELTON ROBERT MILLER RGNL (5N8)

Use Fargo altimeter setting; when not received use Morehead altimeter setting and increase all MDA 20 feet. DME/DME RNP-0.3 NA.

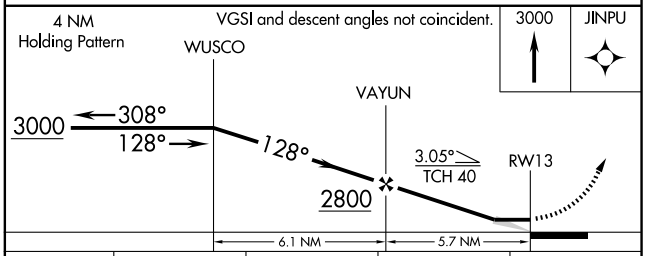
MISSED APPROACH: Climb to 3000 direct JINPU and hold.

FARGO APP CON ★	UNICOM
120.4 377.15	122.8 (CTAF)





REIL Rwy 31 (L)
MIRL Rwy 13-31 (L)



CATEGORY	A	B	C	D
LNAV MDA	1620-1	687 (700-1)	1620-2 687 (700-2)	NA
CIRCLING	1620-1	687 (700-1)	1620-2 687 (700-2)	NA

NC-1. 08 APR 2010 to 06 MAY 2010

WAAS	APP CRS	Rwy Idg	3900
CH 53607	308°	TDZE	933
W31A		Apt Elev	933

RNAV (GPS) RWY 31

CASSELTON ROBERT MILLER RGNL (5N8)

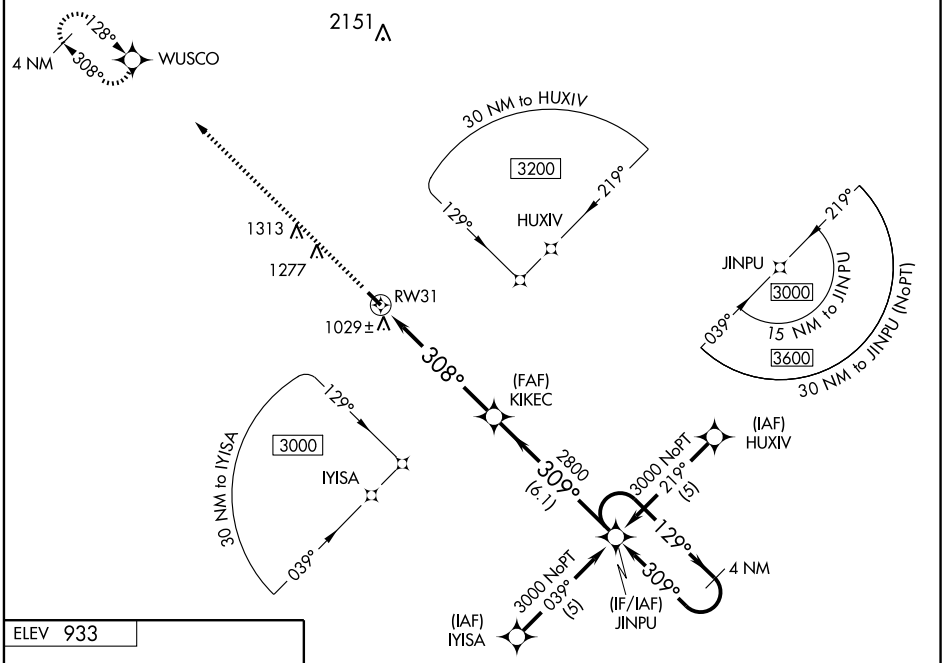
T
A NA

Use Fargo altimeter setting; when not received, use Morehead altimeter setting and increase all DA 11 feet and all MDA 20 feet, increase LNAV Cat C visibility ¼ mile. Baro-VNAV NA. Visibility reduction by helicopters NA. DME/DME RNP-0.3 NA.

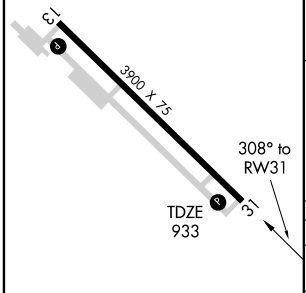
MISSED APPROACH: Climb to 3000 direct WUSCO and hold.

FARGO APP CON ★
120.4 377.15

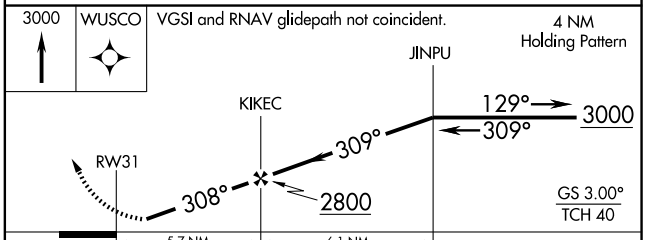
UNICOM
122.8 (CTAF) L



ELEV 933



REIL Rwy 31 L
MIRL Rwy 13-31 L



CATEGORY	A	B	C	D
LPV DA	1226-1 293 (300-1)			NA
LNAV/VNAV DA	1370-1½ 437 (500-1½)			NA
LNAV MDA	1420-1 487 (500-1)		1420-1¼ 487 (500-1¼)	NA
CIRCLING	1420-1 487 (500-1)		1420-1½ 487 (500-1½)	NA

NC-1. 08 APR 2010 to 06 MAY 2010

VORTAC FAR	APP CRS	Rwy Idg	3900
116.2	283°	TDZE	929
Chan 109		Apt Elev	933

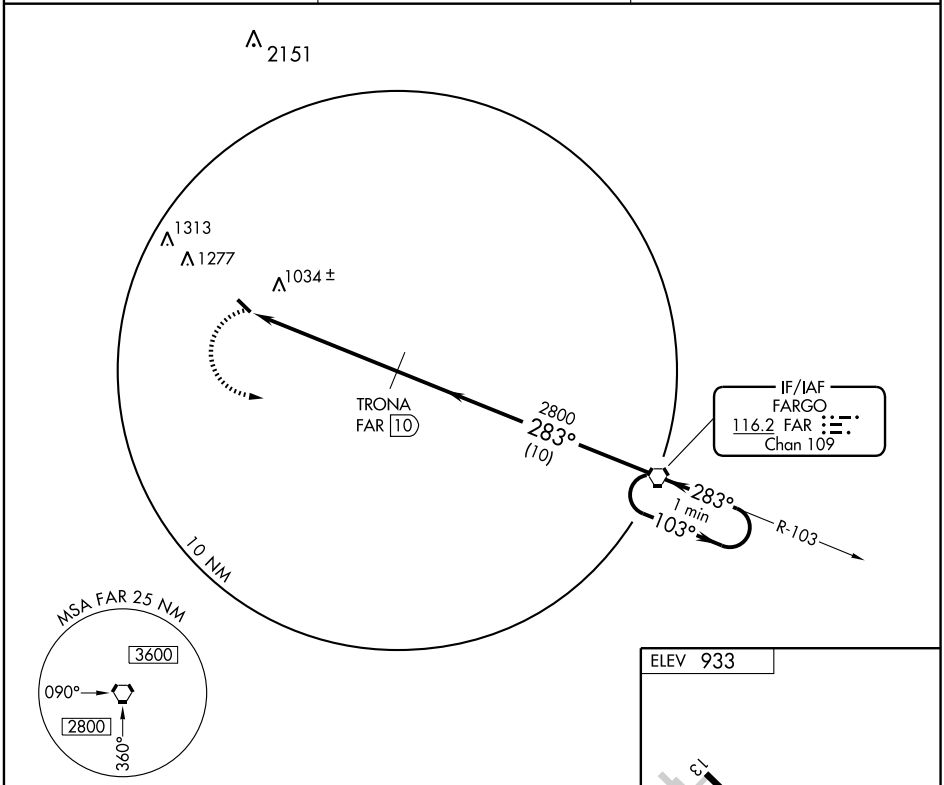
VOR/DME RWY 31

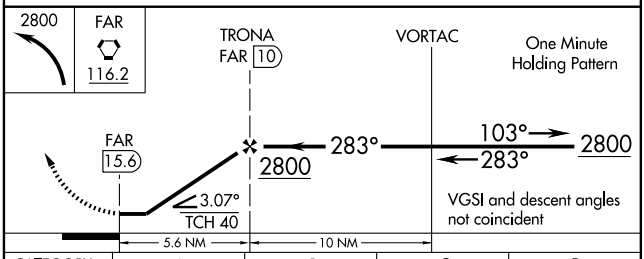
CASSELTON ROBERT MILLER RGNL (5N8)

T
A NA — Use Fargo altimeter setting; if not received, use Morehead altimeter setting.

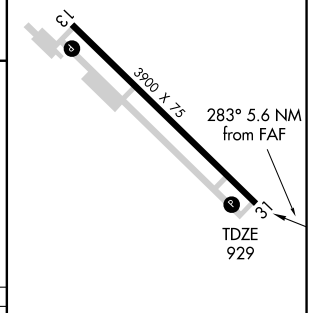
MISSED APPROACH: Climbing left turn to 2800 direct FAR VORTAC and hold.

FARGO ASOS	FARGO APP CON ★	UNICOM
124.5	120.4 377.15	122.8 (CTAF) L





CATEGORY	A	B	C	D
S-31	1360-1	431 (500-1)	1360-1¼ 431 (500-1¼)	NA
CIRCLING	1400-1	467 (500-1)	1400-1½ 467 (500-1½)	NA



REIL Rwy 31 L
MIRL Rwy 13-31 L

NC-1. 08 APR 2010 to 06 MAY 2010

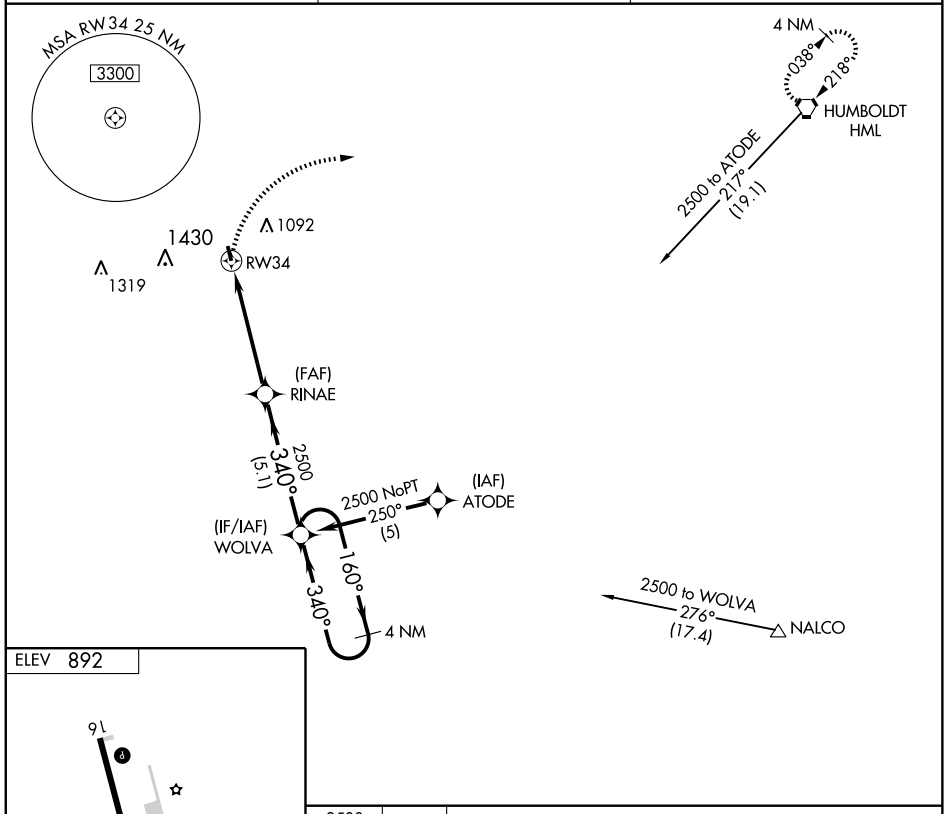
APP CRS	Rwy Idg	3299
340°	TDZE	892
	Apt Elev	892

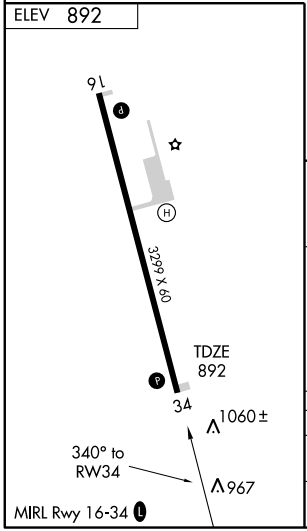
RNAV (GPS) RWY 34
CAVALIER MUNI (2C8)

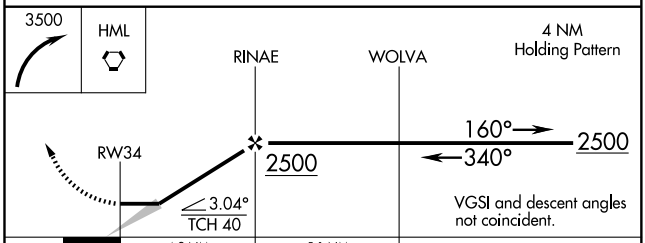
Use Hallock altimeter setting.
NA GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.

MISSED APPROACH: Climbing right turn to 3500 direct HML VORTAC and hold.

AWOS-3	GRAND FORKS RADIO	UNICOM
118.275	122.3	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1440-1 548 (600-1)		1440-1½ 548 (600-1½)	NA
CIRCLING	1500-1 608 (700-1)		1500-1¾ 608 (700-1¾)	NA

NC-1. 08 APR 2010 to 06 MAY 2010

APP CRS	Rwy Idg	3500
129°	TDZE	1424
	Apt Elev	1424

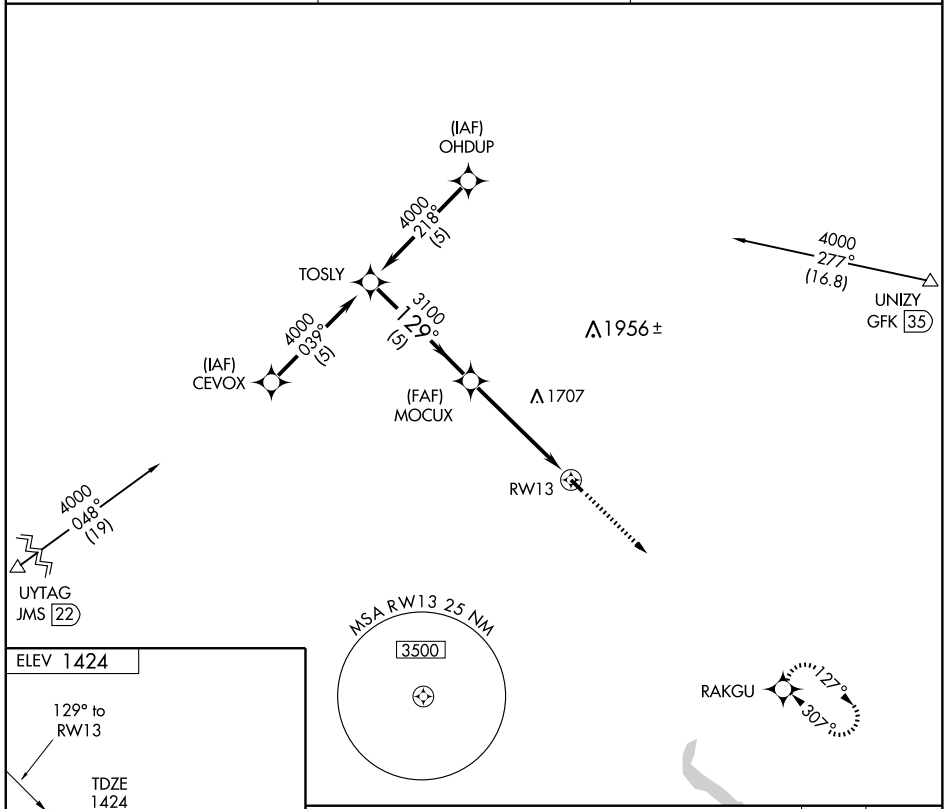
GPS RWY 13
COOPERSTOWN MUNI (S32)

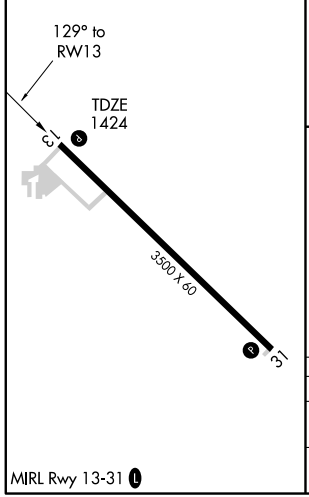
NA

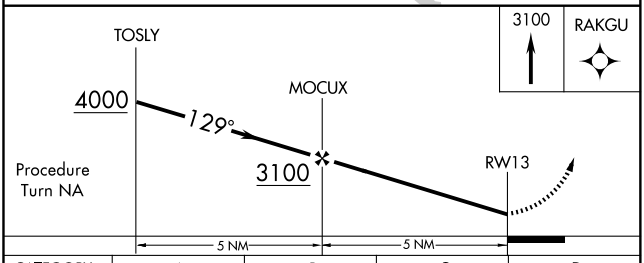
Use Jamestown altimeter setting.

MISSED APPROACH: Climb to 3100 direct RAKGU WP and hold.

AWOS-3	GRAND FORKS RADIO	CTAF
118.750	123.6	122.9 L







CATEGORY	A	B	C	D
S-13	2020-1 596 (600-1)		2020-1½ 596 (600-1½)	NA
CIRCLING	2020-1 596 (600-1)		2020-1½ 596 (600-1½)	NA

NC-1. 08 APR 2010 to 06 MAY 2010

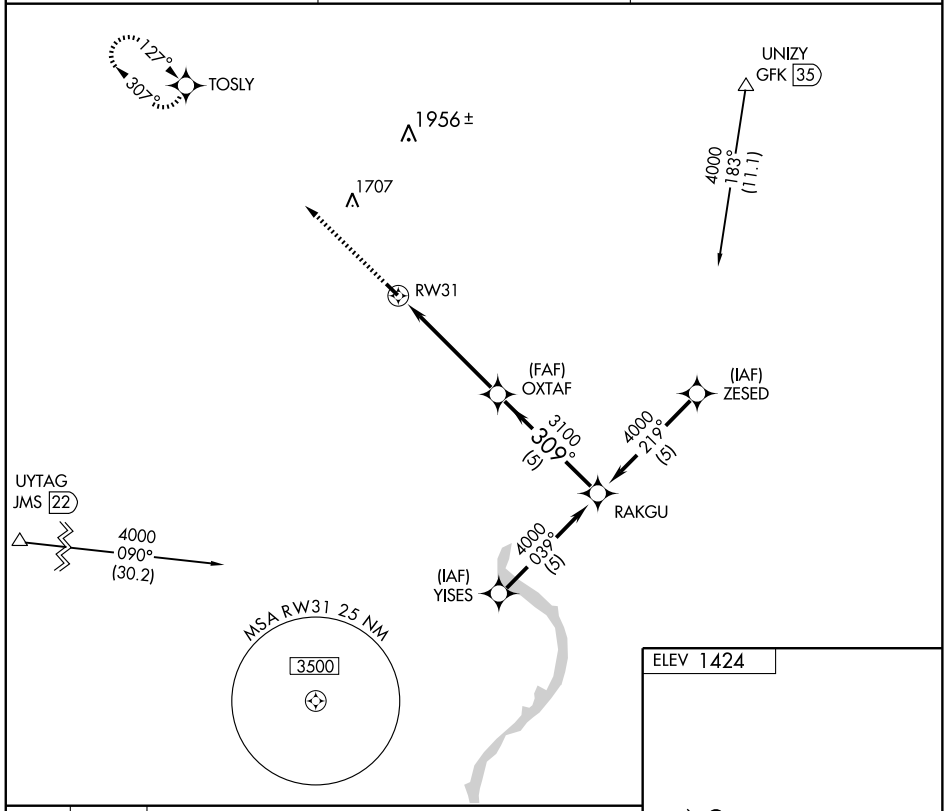
APP CRS		
309°	Rwy Idg	3500
	TDZE	1424
	Apt Elev	1424

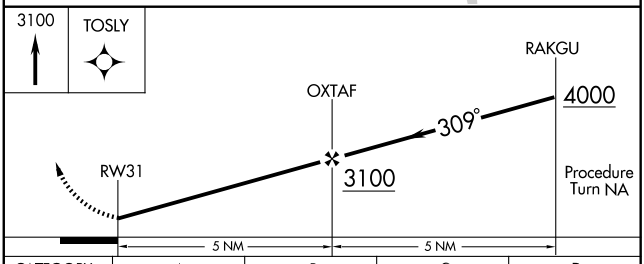
GPS RWY 31
COOPERSTOWN MUNI (S32)

NA — Use Jamestown altimeter setting.

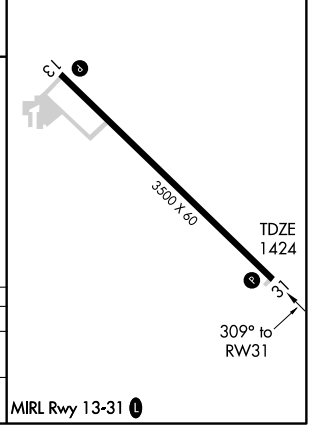
MISSED APPROACH: Climb to 3100 direct TOSLY WP and hold.

AWOS-3	GRAND FORKS RADIO	CTAF
118.750	123.6	122.9 L





CATEGORY	A	B	C	D
S-31	1900-1	476 (500-1)	1900-1¼ 476 (500-1¼)	NA
CIRCLING	2020-1	596 (600-1)	2020-1½ 596 (600-1½)	NA



MIRL Rwy 13-31 L

NC-1. 08 APR 2010 to 06 MAY 2010

APP CRS	Rwy Idg	3800
304°	TDZE	1948
	Apt Elev	1950

GPS RWY 30
CROSBY MUNI (D50)

NA

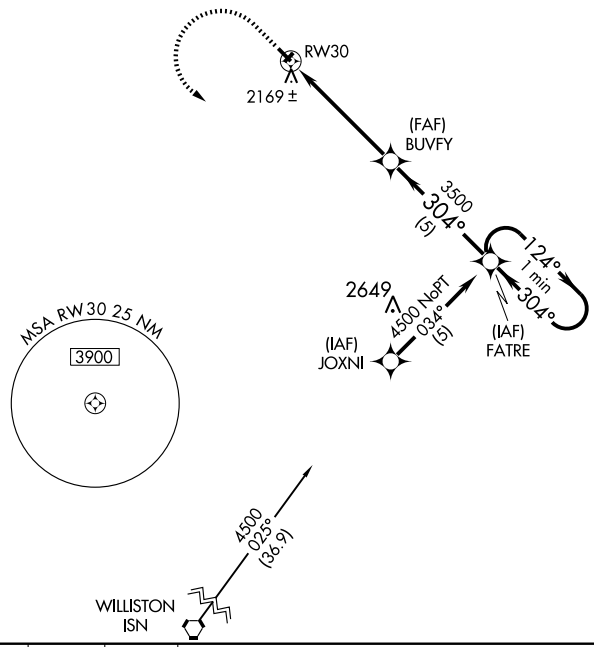
Use Willliston altimeter setting.

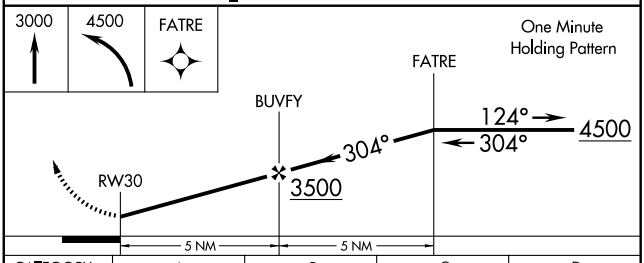
MISSED APPROACH: Climb to 3000, then climbing left turn to 4500 direct FATRE WP and hold.

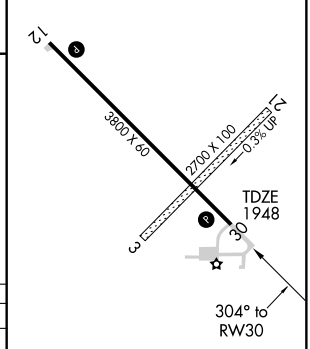
AWOS-3	SALT LAKE CITY CENTER	CTAF
118.025	126.85 305.2	122.9 L

CANADA

UNITED STATES







CATEGORY	A	B	C	D
S-30	2600-1	652 (700-1)	2600-1¾ 652 (700-1¾)	2600-2 652 (700-2)
CIRCLING	2640-1	690 (700-1)	2640-2 690 (700-2)	2640-2¼ 690 (700-2¼)

MIRL Rwy 12-30 L

NC-1. 08 APR 2010 to 06 MAY 2010

LOC I-VKE	APP CRS	Rwy Idg	4866
108.7	311°	TDZE	1448
		Apt Elev	1455

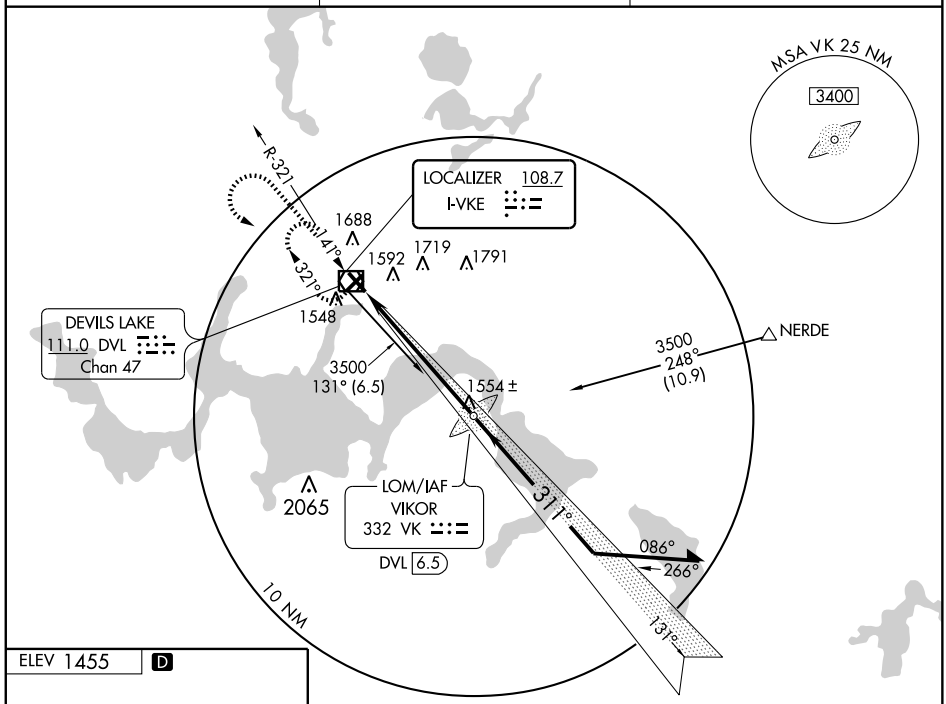
ILS or LOC RWY 31
DEVILS LAKE RGNL (DVL)

Inoperative table does not apply to S-ILS 31.
For inoperative MALSR increase S-LOC 31 Cat A, B, C visibility to 1 mile.

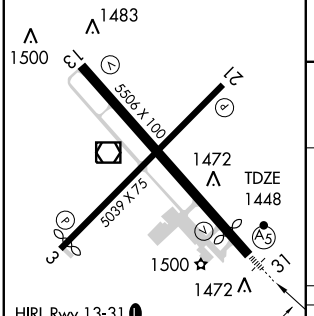
MALSR

MISSED APPROACH: Climb to 3500 then left turn direct DVL VOR/DME and hold.

AWOS-3	GRAND FORKS RADIO	UNICOM
125.875	122.3	122.8 (CTAF) L

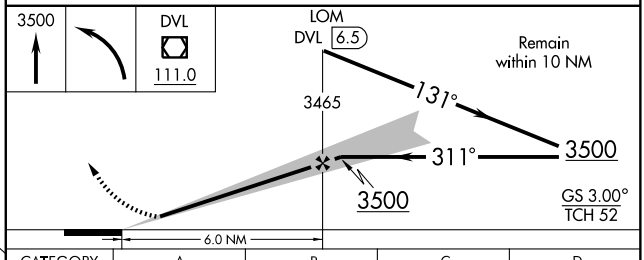


ELEV 1455 D



FAF to MAP 6 NM					
Knots	60	90	120	150	180
Min:Sec	6:00	4:00	3:00	2:24	2:00

DME OR ADF REQUIRED



CATEGORY	A	B	C	D
S-ILS 31	1698-¾ 250 (300-¾)			
S-LOC 31	1800-¾ 352 (400-¾)			
CIRCLING	2000-1 545 (600-1)		2000-1½ 545 (600-1½)	2080-2 625 (700-2)

NC-1. 08 APR 2010 to 06 MAY 2010

WAAS	APP CRS	Rwy Idg	4856
CH 93608	038°	TDZE	1450
W03A		Apt Elev	1455

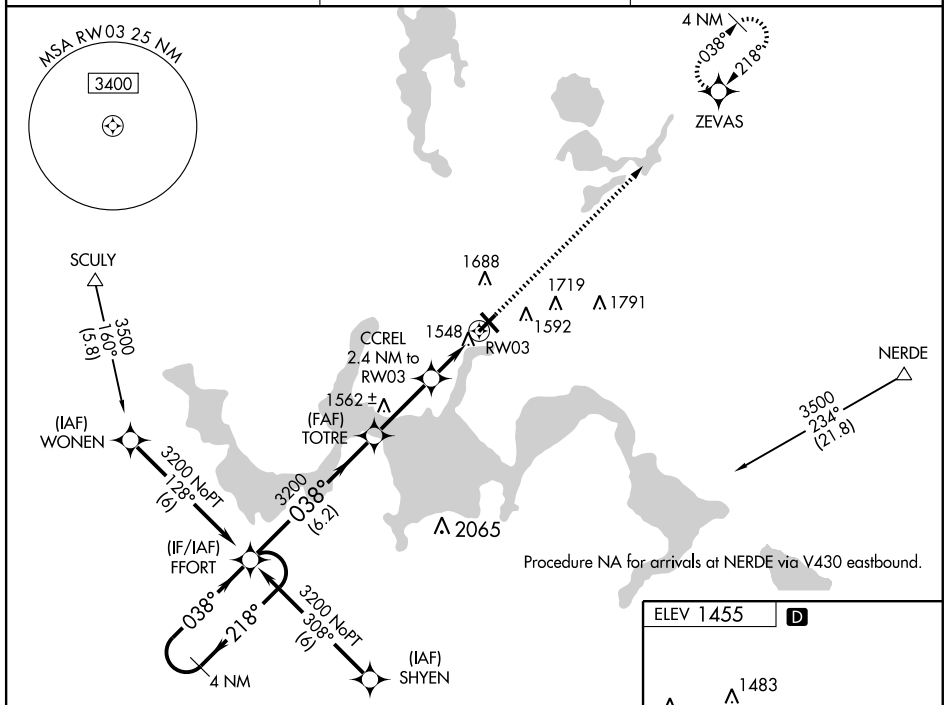
RNAV (GPS) RWY 3

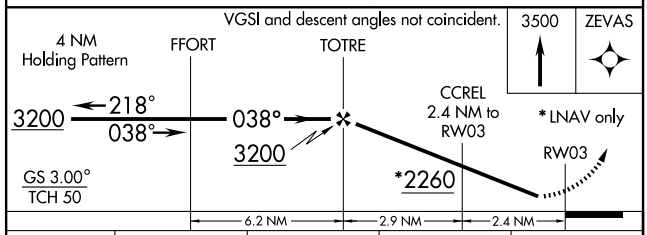
DEVILS LAKE RGNL (DVL)

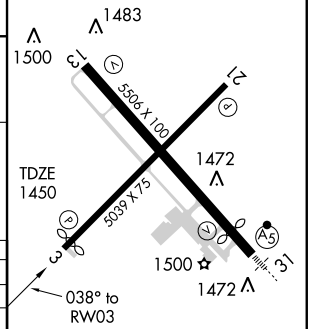
Baro-VNAV NA when using Jamestown altimeter setting.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F).
DME/DME RNP -0.3 NA. Visibility reduction by helicopters NA.
When local altimeter setting not received, use Jamestown altimeter setting and increase all DA 173 feet, and all MDA 180 feet, increase LPV and LNAV/VNAV all Cats visibility ¾ mile, LNAV and Circling Cats C and D visibility ½ mile.

MISSED APPROACH: Climb to 3500 direct ZEVAS and hold.

AWOS-3	GRAND FORKS RADIO	UNICOM
125.875	122.3	122.8 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	1775-1 325 (400-1)			
LNAV/VNAV DA	1821-1¼ 371 (400-1¼)			
LNAV MDA	1800-1 350 (400-1)			1800-1¼ 350 (400-1¼)
CIRCLING	2000-1 545 (600-1)		2000-1½ 545 (600-1½)	2080-2 625 (700-2)

HIRL Rwy 13-31 L
REIL Rwy 13
REIL Rwys 3 and 21 L
MIRL Rwy 3-21 L

WAAS CH 78314 W13A	APP CRS 131°	Rwy ldg 5506 TDZE 1456 Apt Elev 1456

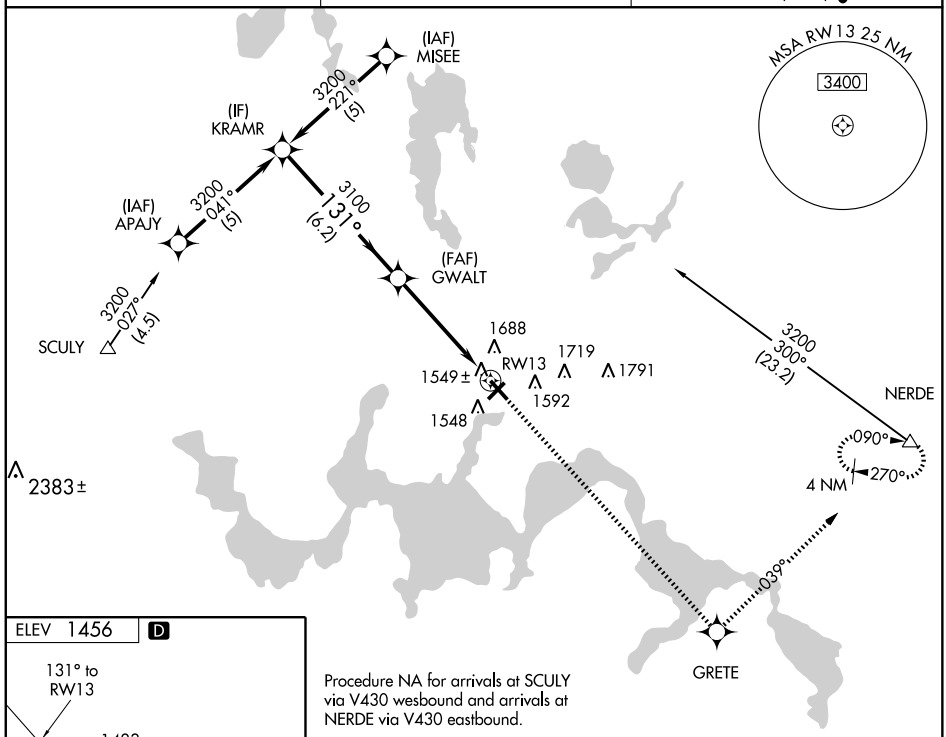
RNAV (GPS) RWY 13

DEVILS LAKE RGNL (DVL)

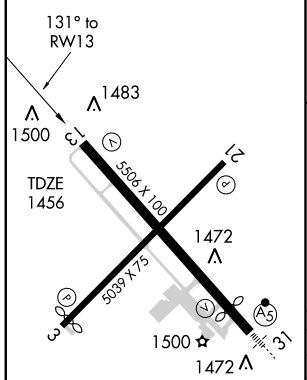
Baro-VNAV NA when using Jamestown altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Jamestown altimeter setting and increase all DA 172 feet, and all MDA 180 feet, increase LPV all Cats visibility ¾ mile, LNAV/VNAV all Cats ½ mile, LNAV Cat C ¼ mile, Cat D ½ mile, circling Cats C and D ½ mile. VDP NA when using Jamestown altimeter setting.

MISSED APPROACH: Climb to 3300 direct GRETE and left turn via track 039° to NERDE and hold.

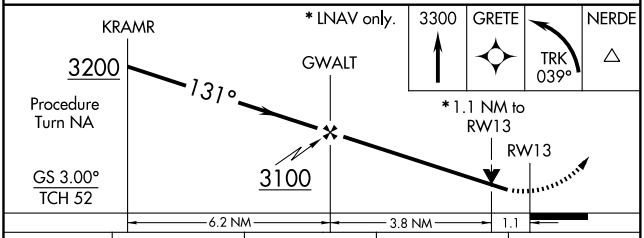
AWOS-3	GRAND FORKS RADIO	UNICOM
125.875	122.3	122.8 (CTAF) L



Procedure NA for arrivals at SCULY via V430 wesbound and arrivals at NERDE via V430 eastbound.



HIRL Rwy 13-31 L
REIL Rwy 13
REIL Rwys 3 and 21 L
MIRL Rwy 3-21 L



CATEGORY	A	B	C	D
LPV DA	1768-1 312 (400-1)			
LNAV/VNAV DA	1956-1¾ 500 (500-1¾)			
LNAV MDA	1860-1 404 (500-1)		1860-1¼ 404 (500-1¼)	
CIRCLING	2000-1 544 (600-1)		2000-1½ 544 (600-1½)	2080-2 624 (700-2)

NC-1. 08 APR 2010 to 06 MAY 2010

WAAS CH 58314 W31A	APP CRS 311°	Rwy ldg 4866 TDZE 1449 Apt Elev 1456

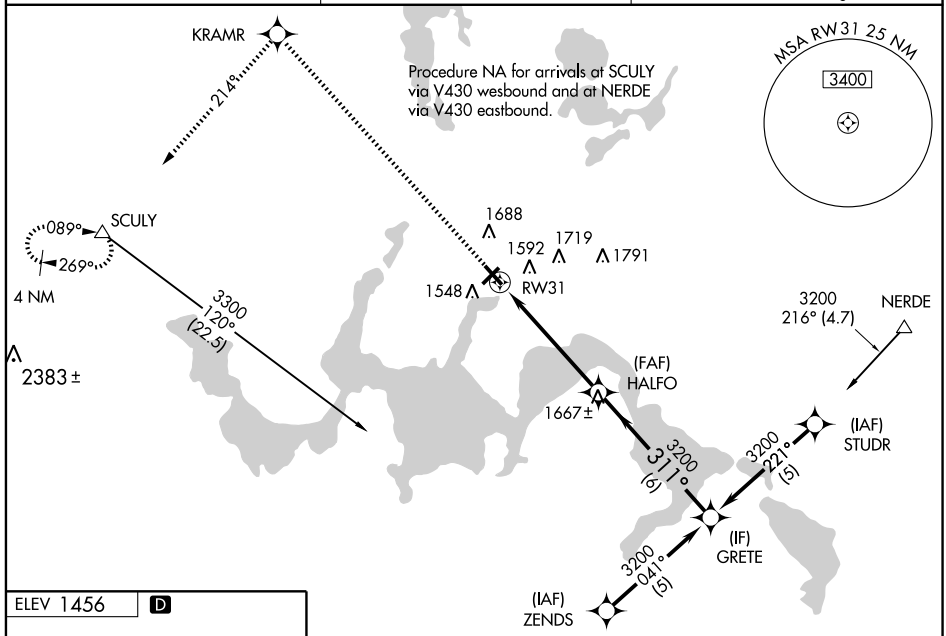
RNAV (GPS) RWY 31
DEVILS LAKE RGNL (DVL)

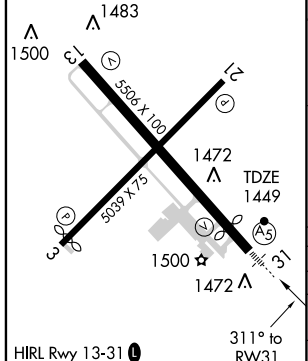
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA. For inoperative MALSR, increase visibility LNAV Cat D 1¼ mile. When local altimeter setting not received, use Jamestown altimeter setting and increase all DA 172 feet, all MDA 180 feet, increase LPV all Cats visibility ½ mile, LNAV/VNAV all Cats ¾ mile, LNAV Cat C ½ mile, Cat D ¼ mile, circling Cats C and D½ mile. Baro-VNAV and VDP NA when using Jamestown altimeter setting. For inoperative MALSR, when using Jamestown altimeter setting, increase LPV all Cats visibility to 1½ mile.

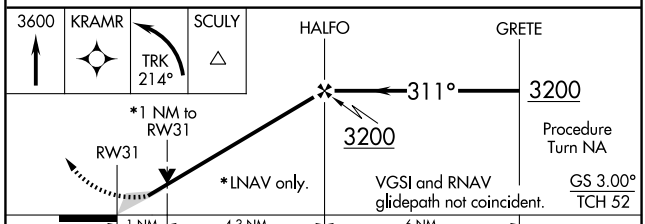
MALSR

MISSED APPROACH: Climb to 3600 direct KRAMR and left turn via Track 214° to SCULY and hold.

AWOS-3	GRAND FORKS RADIO	UNICOM
125.875	122.3	122.8 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	1699-½ 250 (300-½)			
LNAV/VNAV DA	1907-1 458 (500-1)			
LNAV MDA	1800-½ 351 (400-½)			1800-1 351 (400-1)
CIRCLING	2000-1 544 (600-1)		2000-1½ 544 (600-1½)	2080-2 624 (700-2)

NC-1. 08 APR 2010 to 06 MAY 2010

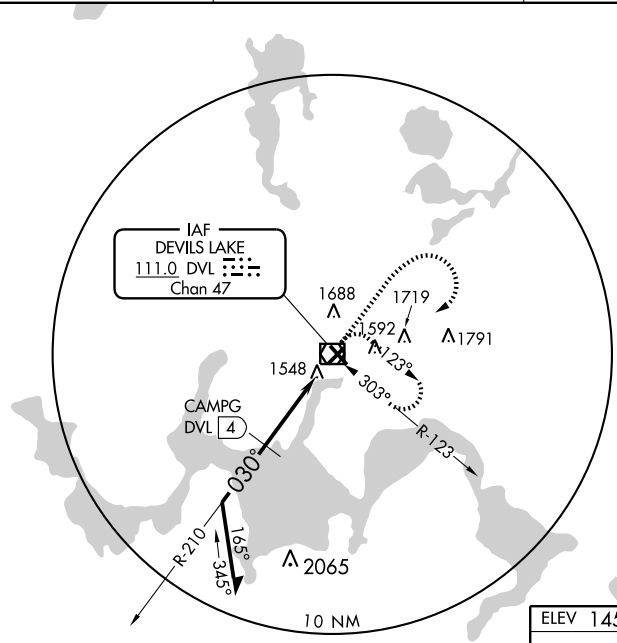
VOR/DME DVL	APP CRS	Rwy Idg	4856
111.0	030°	TDZE	1450
Chan 47		Apt Elev	1455

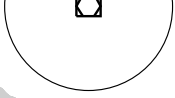
VOR RWY 3
DEVILS LAKE RGNL (DVL)

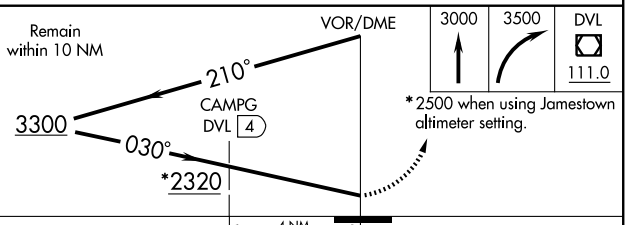
Visibility reduction by helicopters NA.
When local altimeter setting not received, use Jamestown altimeter setting and increase all MDA 180 feet, increase S-3 and Circling visibility Cat. A/B and D ¼ mile, Cat. C ½ mile, increase CAMPG FIX MINIMUMS S-3 and Circling Cat. C and D visibility ½ mile.

MISSED APPROACH: Climb to 3000 then climbing right turn to 3500 direct DVL VOR/DME and hold.

AWOS-3	GRAND FORKS RADIO	UNICOM
125.875	122.3	122.8 (CTAF) L

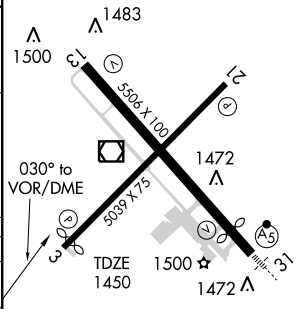






CATEGORY	A	B	C	D
S-3	2320-1 870 (900-1)	2320-1¼ 870 (900-1¼)	2320-2½ 870 (900-2½)	2320-2¾ 870 (900-2¾)
CIRCLING	2320-1 865 (900-1)	2320-1¼ 865 (900-1¼)	2320-2½ 865 (900-2½)	2320-2¾ 865 (900-2¾)
CAMPG FIX MINIMUMS				
S-3	1800-1 350 (400-1)			1800-1¼ 350 (400-1¼)
CIRCLING	2000-1 545 (600-1)		2000-1½ 545 (600-1½)	2080-2 625 (700-2)

ELEV 1455 D



HIRL Rwy 13-31 L
REIL Rwy 13
REIL Rwys 3 and 21 L
MIRL Rwy 3-21 L

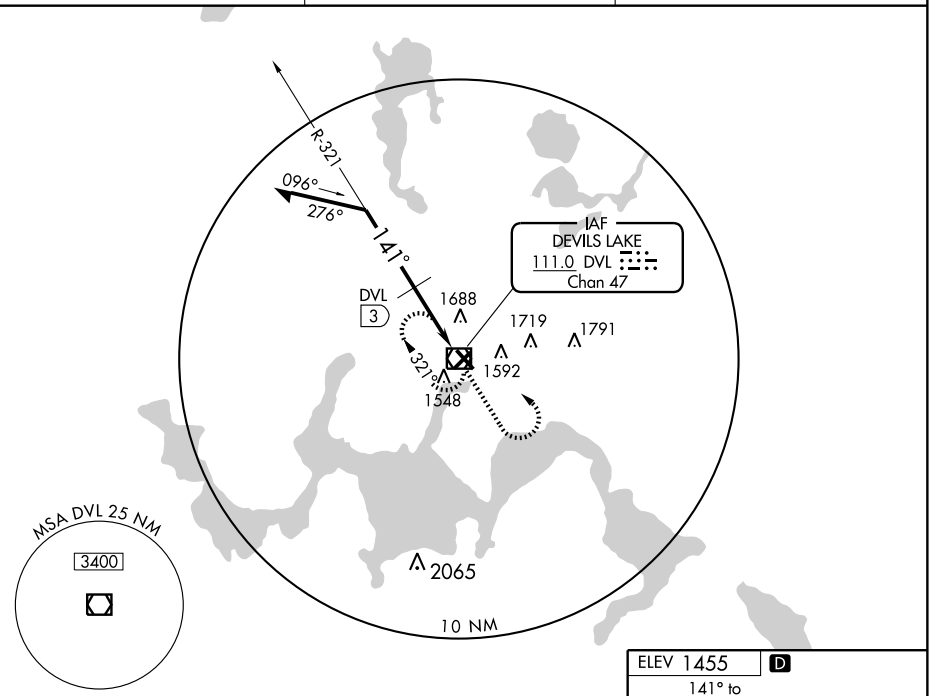
NC-1. 08 APR 2010 to 06 MAY 2010

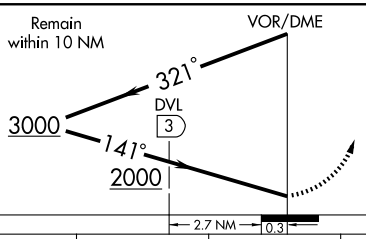
VOR/DME DVL	APP CRS	Rwy Idg	5506
111.0	141°	TDZE	1455
Chan 47		Apt Elev	1455

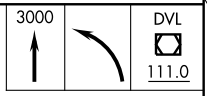
VOR RWY 13
DEVILS LAKE RGNL(DVL)

MISSED APPROACH: Climb to 3000 then left turn direct DVL VOR/DME and hold.

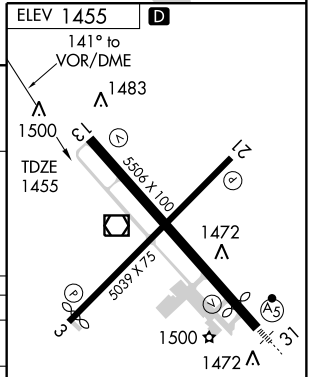
AWOS-3	GRAND FORKS RADIO	UNICOM
125.875	122.3	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-13	2000-1	545 (600-1)	2000-1½ 545 (600-1½)	2000-1¾ 545 (600-1¾)
CIRCLING	2000-1	545 (600-1)	2000-1½ 545 (600-1½)	2080-2 625 (700-2)
DME MINIMUMS				
S-13	1940-1	485 (500-1)	1940-1¼ 485 (500-1¼)	1940-1½ 485 (500-1½)
CIRCLING	2000-1	545 (600-1)	2000-1½ 545 (600-1½)	2080-2 625 (700-2)



HIRL Rwy 13-31 L
REIL Rwy 13
REIL Rwys 3 and 21 L
MIRL Rwy 3-21 L

NC-1. 08 APR 2010 to 06 MAY 2010

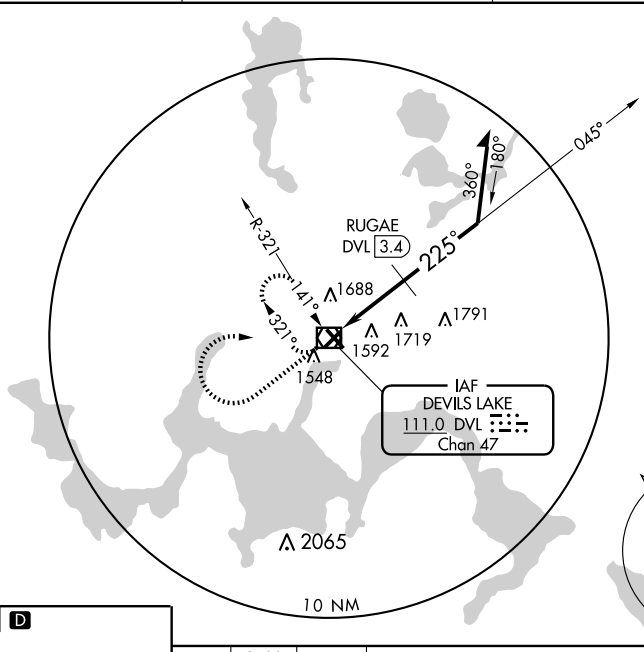
VOR/DME DVL	APP CRS	Rwy Idg	5039
111.0	225°	TDZE	1449
Chan 47		Apt Elev	1455

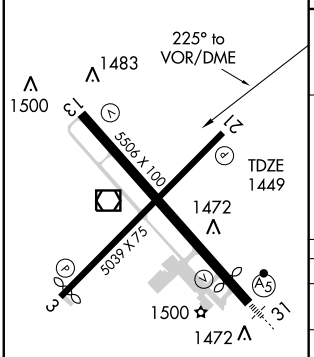
VOR RWY 21
DEVILS LAKE RGNL (DVL)

When local altimeter setting not received, use Jamestown altimeter setting and increase all MDA 180 feet, increase S-21 and Circling visibility Cat. A ¼ mile, Cat. C and D ½ mile, increase RUGAE FIX MINIMUMS S-21 and Circling visibility Cat. B to 1¼, Cat. C to 2¼ and Cat. D to 2½. VDP NA when using Jamestown altimeter setting.

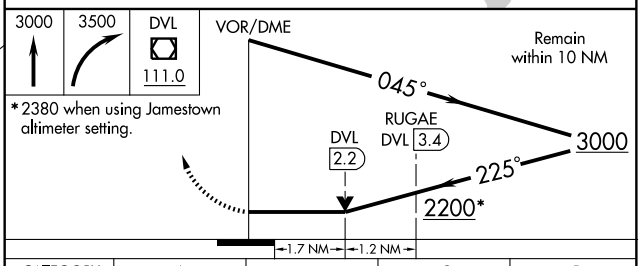
MISSED APPROACH: Climb to 3000 then climbing right turn to 3500 direct DVL VOR/DME and hold.

AWOS-3	GRAND FORKS RADIO	UNICOM
125.875	122.3	122.8 (CTAF) L





HIRL Rwy 13-31 L
REIL Rwy 13
REIL Rwys 3 and 21 L
MIRL Rwy 3-21 L



CATEGORY	A	B	C	D
S-21	2200-1 751 (800-1)	2200-1¼ 751 (800-1¼)	2200-2¼ 751 (800-2¼)	2200-2½ 751 (800-2½)
CIRCLING	2200-1 745 (800-1)	2200-1¼ 745 (800-1¼)	2200-2¼ 745 (800-2¼)	2200-2½ 745 (800-2½)
RUGAE FIX MINIMUMS				
S-21	2020-1 571 (600-1)		2020-1½ 571 (600-1½)	2020-1¾ 571 (600-1¾)
CIRCLING	2020-1 565 (600-1)		2020-1½ 565 (600-1½)	2080-2 625 (700-2)

NC-1, 08 APR 2010 to 06 MAY 2010

VOR/DME DVL	APP CRS	Rwy Idg	4866
111.0	303°	TDZE	1448
Chan 47		Apt Elev	1455

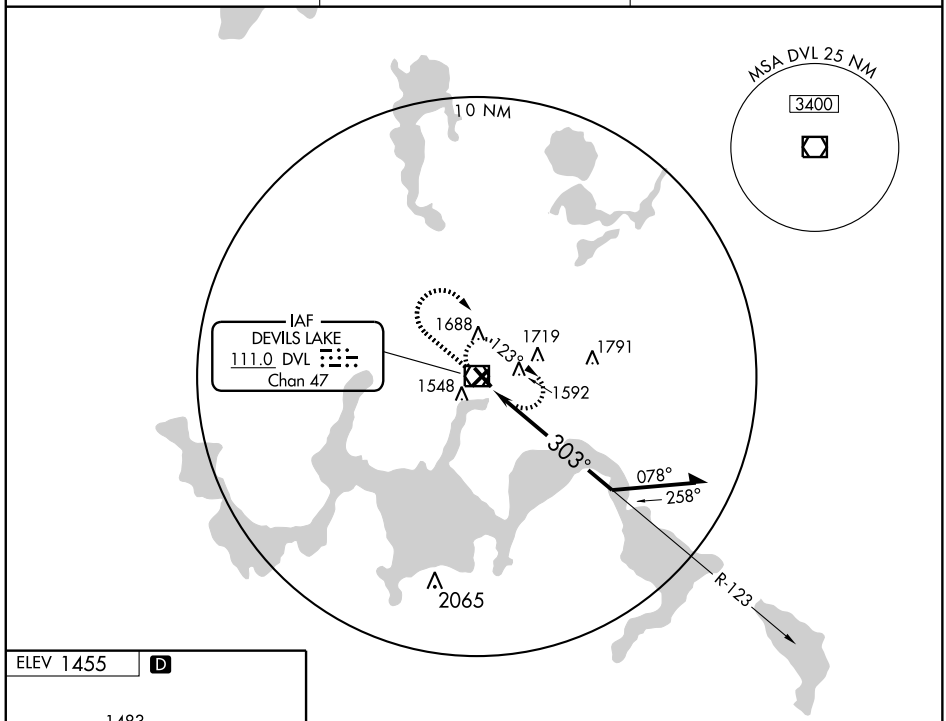
VOR RWY 31
DEVILS LAKE RGNL(DVL)

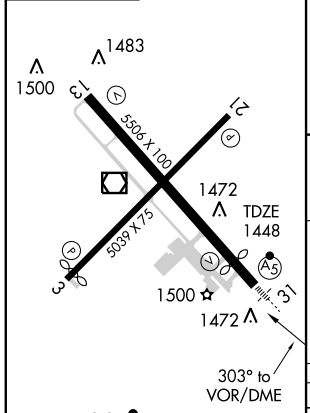
T S-31 Cats A and B visibility increased ¼ mile for inoperative MALSR.

MALSR (A5)

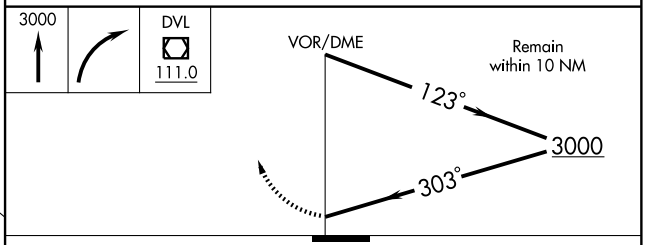
MISSED APPROACH: Climb to 3000 then right turn direct DVL VOR/DME and hold.

AWOS-3	GRAND FORKS RADIO	UNICOM
125.875	122.3	122.8 (CTAF) L





HIRL Rwy 13-31 L
REIL Rwy 13
REIL Rwys 3 and 21 L
MIRL Rwy 3-21 L



CATEGORY	A	B	C	D
S-31	1920-¾ 472 (500-¾)			1920-1 472 (500-1)
CIRCLING	2000-1 545 (600-1)		2000-1½ 545 (600-1½)	2080-2 625 (700-2)

NC-1, 08 APR 2010 to 06 MAY 2010

DICKINSON, NORTH DAKOTA

LOC I-DIK	APP CRS	Rwy Idg	6399
108.3	320°	TDZE	2591
		Apt Elev	2592

AL-120 (FAA)

ILS or LOC RWY 32

DICKINSON-THEODORE ROOSEVELT RGNL (DIK)

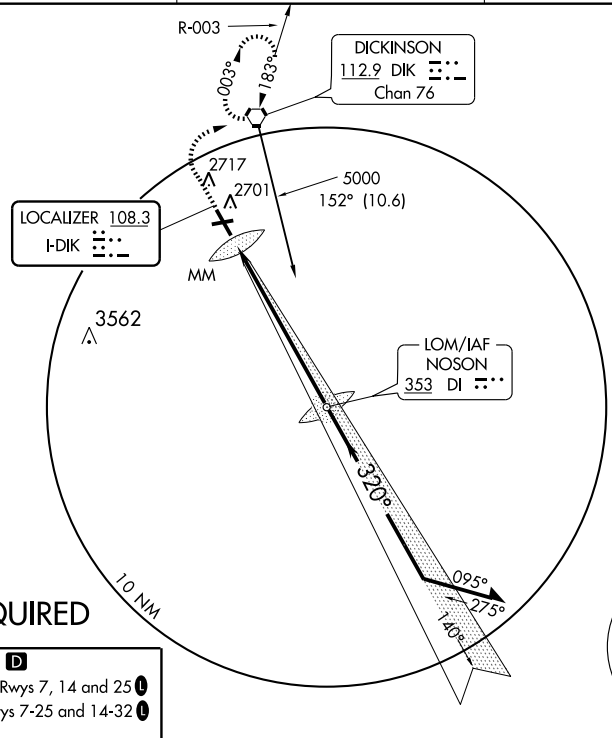
If local altimeter not received, use Bowman Muni altimeter setting and increase S-ILS DA to 3058 and all MDAs 280 feet.

NA

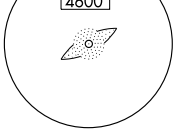
MALSR

MISSED APPROACH: Climb to 5000 then right turn direct DIK VORTAC and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
118.375	124.25 380.3	123.0 (CTAF) L



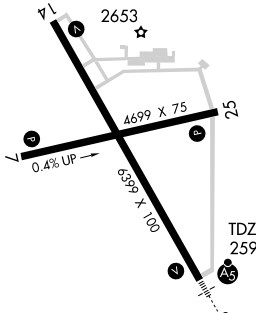
ADF REQUIRED



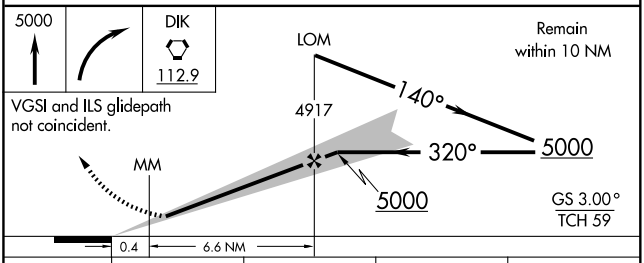
ELEV 2592 D

REIL Rwys 7, 14 and 25 L

MIRL Rwys 7-25 and 14-32 L



FAF to MAP 7 NM					
Knots	60	90	120	150	180
Min:Sec	7:00	4:40	3:30	2:48	2:20



CATEGORY	A	B	C	D
S-ILS 32	2791-½ 200 (200-½)			
S-LOC 32	3080-½ 489 (500-½)		3080-¾ 489 (500-¾)	3080-1 489 (500-1)
CIRCLING	3080-1 488 (500-1)		3080-1½ 488 (500-1½)	3160-2 568 (600-2)

NC-1. 08 APR 2010 to 06 MAY 2010

DICKINSON, NORTH DAKOTA

AL-120 (FAA)

WAAS	APP CRS	Rwy ldg	6399
CH 56211	140°	TDZE	2589
W14A		Apt Elev	2592

RNAV (GPS) RWY 14

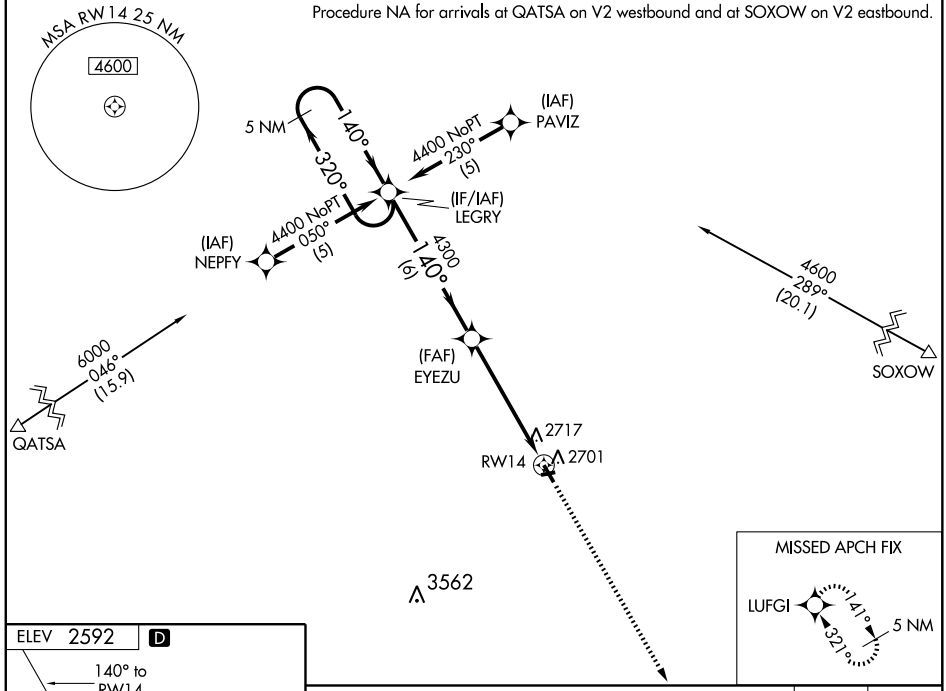
DICKINSON-THEODORE ROOSEVELT RGNL (DIK)

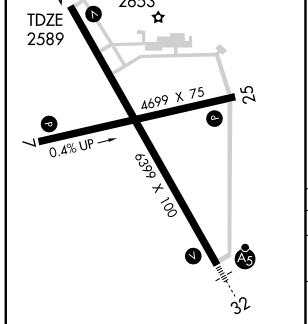
DME/DME RNP- 0.3 NA. Baro-VNAV NA below -20°C (-4°F).
VDP and Baro/VNAV NA when using Bowman Muni altimeter setting.
If local altimeter not received, use Bowman Muni altimeter setting and increase all DAs/MDAs 280 feet.

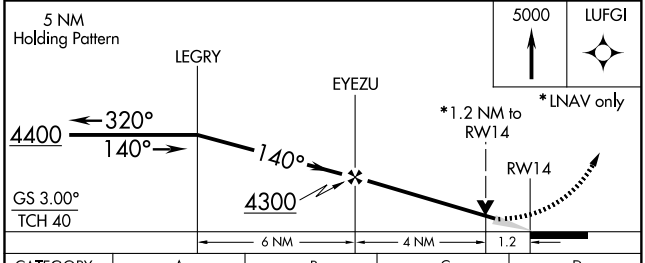
MISSED APPROACH: Climb to 5000 direct LUFGI and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
118.375	124.25 380.3	123.0 (CTAF) L

Procedure NA for arrivals at QATSA on V2 westbound and at SOXOW on V2 eastbound.







CATEGORY	A	B	C	D
LPV DA	2840-1 251 (300-1)			
LNAV/VNAV DA	3060-1¾ 471 (500-1¾)			
LNAV MDA	3020-1 431 (500-1)		3020-1¼ 431 (500-1¼)	3020-1½ 431 (500-1½)
CIRCLING	3080-1¾ 488 (500-1¾)			3160-2 568 (600-2)

REIL Rwys 7, 14 and 25 L
MIRL Rwys 7-25 and 14-32 L

NC-1, 08 APR 2010 to 06 MAY 2010

DICKINSON, NORTH DAKOTA

09351

WAAS	APP CRS	Rwy ldg	6399
CH 45512	320°	TDZE	2591
W32A		Apt Elev	2592

AL-120 (FAA)

RNAV (GPS) RWY 32

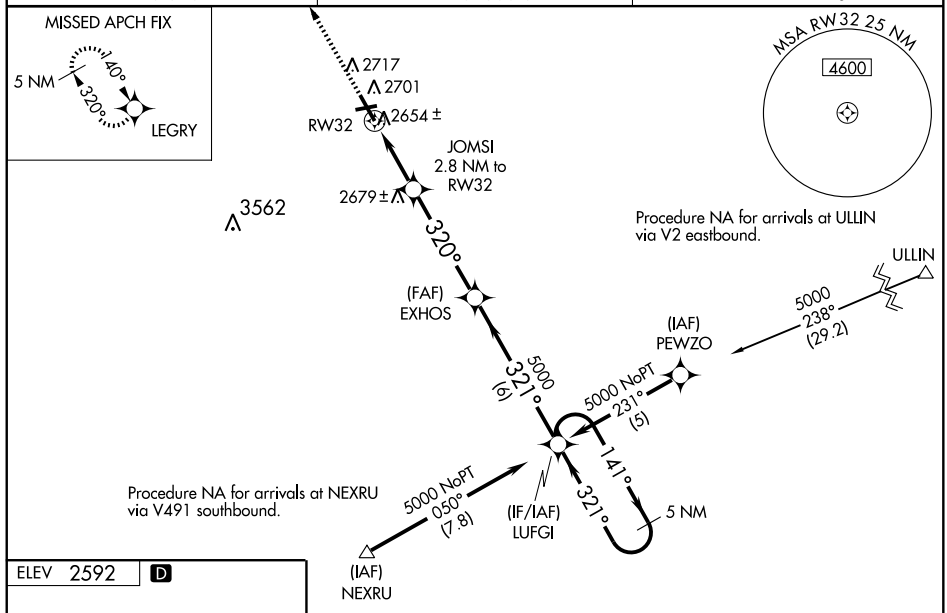
DICKINSON-THEODORE ROOSEVELT RGNL (DIK)

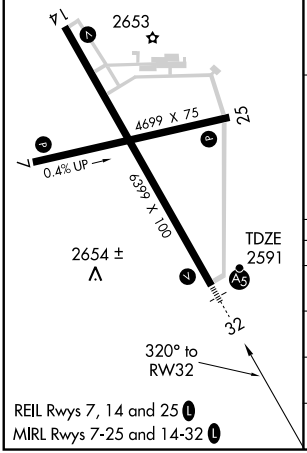
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -20°C (-4°F) or above 44°C (111°F). DME/DME RNP- 0.3 NA. When local altimeter setting not received, use Bowman altimeter setting and increase all DA 266 feet, all MDA 280 feet, increase LPV all Cats visibility ½ mile, LNAV/VNAV Cats A/B/C visibility 1 mile, Cat D visibility ¾ mile, LNAV Cats C/D visibility ¾ mile, Circling Cat B visibility ¼ mile, Cats C/D visibility ¾ mile. For inoperative MALSR when using Bowman altimeter setting, increase LPV all Cats visibility to 1½ , LNAV/VNAV all Cats visibility to 2, LNAV Cat C visibility to 2 and Cat D visibility to 2 ¼ . For inoperative MALSR, increase LNAV/VNAV Cat D visibility to 1 and LNAV Cat D visibility to 1¼ . VDP and Baro-VNAV NA when using Bowman altimeter setting.

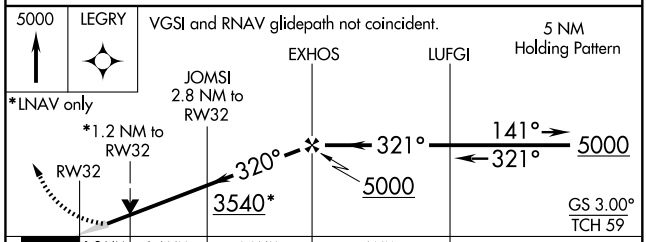
MALSR

MISSED APPROACH Climb to 5000 direct LEGRY and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
118.375	124.25 380.3	123.0 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	2791-½ 200 (200-½)			
LNAV/VNAV DA	2924-½ 333 (400-½)			2924-¾ 333 (400-¾)
LNAV MDA	3000-½ 409 (500-½)		3000-¾ 409 (500-¾)	3000-1 409 (500-1)
CIRCLING	3080-1 488 (500-1)		3080-1½ 488 (500-1½)	3160-2 568 (600-2)

NC-1. 08 APR 2010 to 06 MAY 2010

DICKINSON, NORTH DAKOTA

VORTAC DIK	APP CRS	Rwy Idg	N/A
112.9	183°	TDZE	N/A
Chan 76		Apt Elev	2592

AL-120 (FAA)

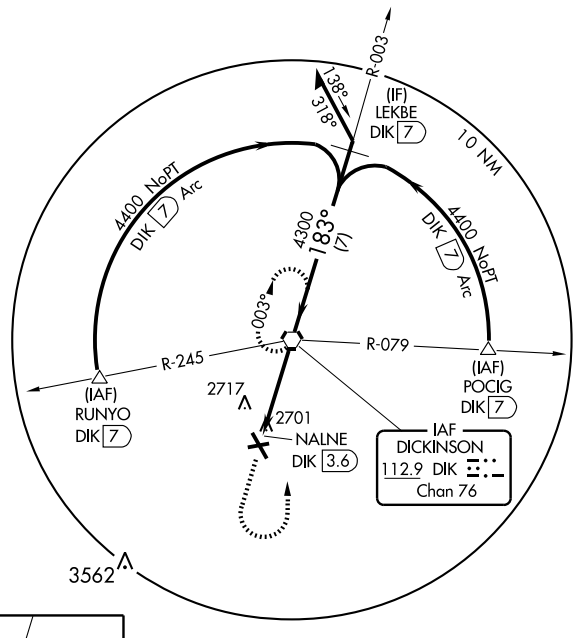
VOR-A

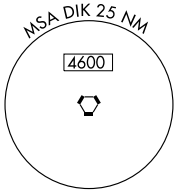
DICKINSON-THEODORE ROOSEVELT RGNL (DIK)

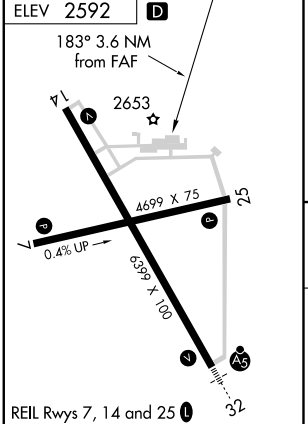
If local altimeter setting not received, use Bowman Muni altimeter setting and increase all MDAs 280 feet.

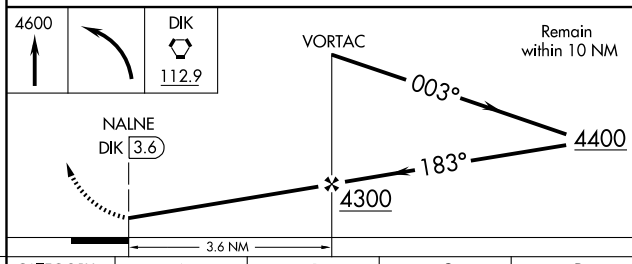
MISSED APPROACH: Climb to 4600 then turn left direct DIK VORTAC and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
118.375	124.25 380.3	123.0 (CTAF) L









FAF to MAP 3.6 NM					
Knots	60	90	120	150	180
Min:Sec	3:36	2:24	1:48	1:26	1:12

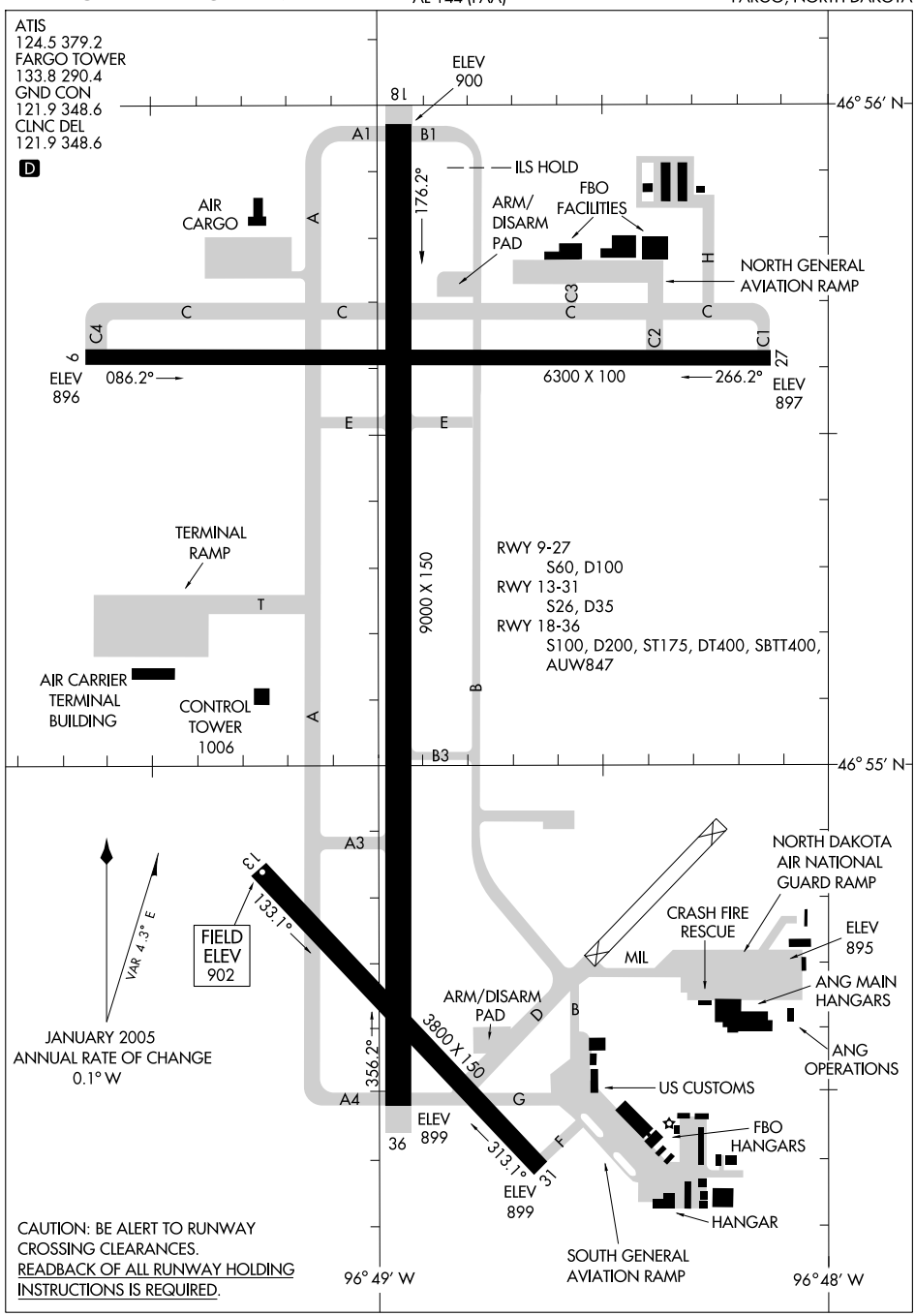
CATEGORY	A	B	C	D
CIRCLING	3080-1	488 (500-1)	3080-1½ 488 (500-1½)	3160-2 568 (600-2)

NC-1, 08 APR 2010 to 06 MAY 2010

AIRPORT DIAGRAM

AL-144 (FAA)

FARGO/HECTOR INTL(FAR)
FARGO, NORTH DAKOTA



NC-1, 08 APR 2010 to 06 MAY 2010

HI-TACAN RWY 18

FARGO/HECTOR INTL (FAR)

VORTAC FAR	APP CRS	Rwy ldg 9000
116.2	178°	TDZE 900
Chan 109		Apt Elev 902

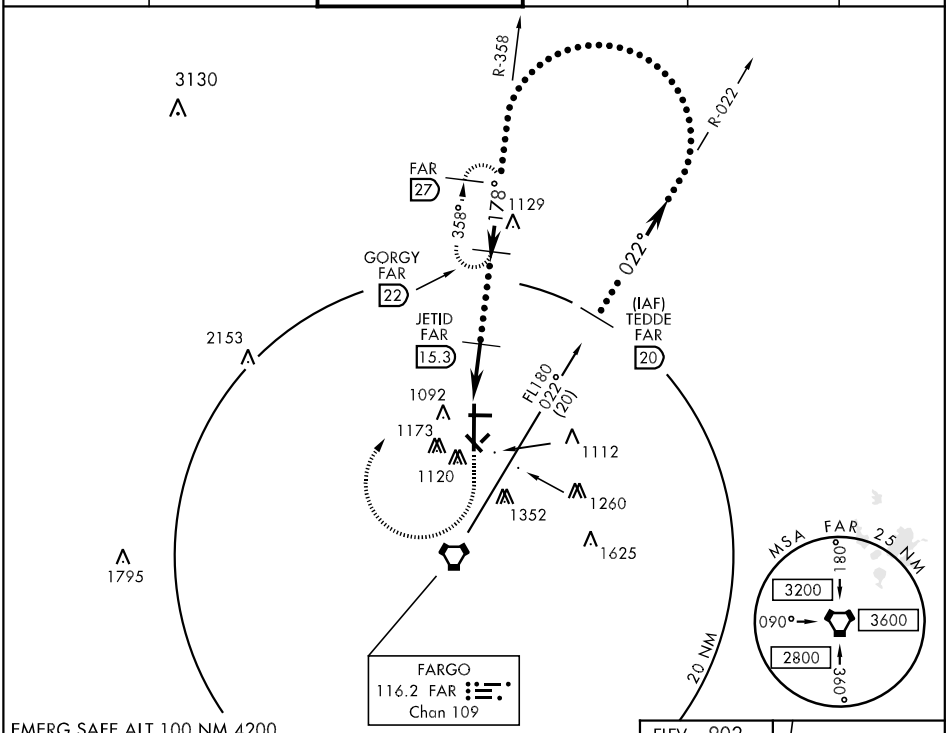
JAL-144 [USAF]

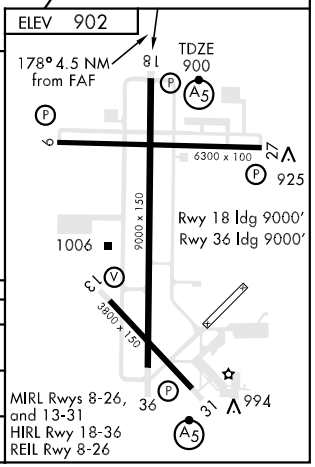
* When ALS inop, increase CAT C RVR to 50 and vis to 1 mile, CAT DE RVR to 60 and vis to 1¼ mile.

MALSR

MISSED APPROACH: Climb to 4000 then right turn via heading 020° to intercept the FAR R-358 to GORGY 22 DME and hold.

ATIS	FARGO APP CON	FARGO TOWER	GND CON	CLNC DEL	ASR
124.5 379.2	120.4 377.15	133.8 290.4	121.9 348.6	121.9 348.6	





CATEGORY	C	D	E
S-TAC 18	1260/24 360 (400-½)	1260/50 360	(400-1)
CIRCLING	1380-1½ 478 (500-1½)	1500-2 598 (600-2)	1560-2¼ 658 (700-2¼)
S-ASR 18 *	1260/24 360 (400-½)	1260/50 360	(400-1)

HI-VOR or TACAN RWY 36

VORTAC FAR	APP CRS	Rwy ldg 9000
116.2	360°	TDZE 899
Chan 109		Apt Elev 902

JAL-144 [USAF]

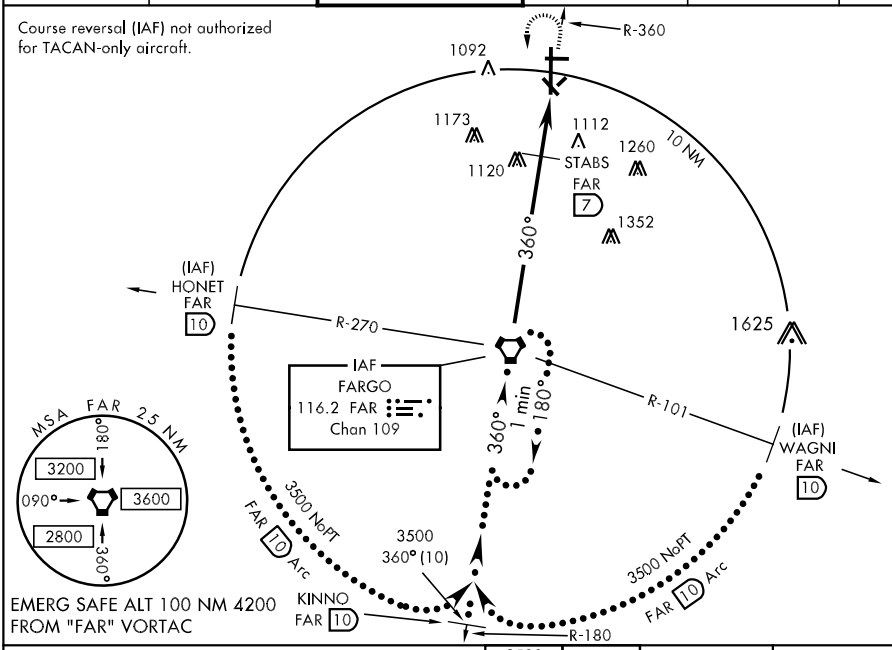
FARGO/HECTOR INTL (FAR)

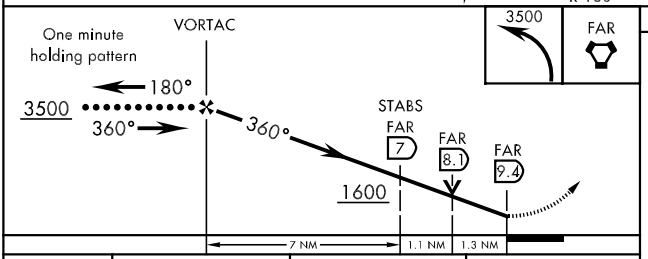
▼ * When ALS inop, increase CAT E vis to 2½ miles.
** When ALS inop, increase CAT E vis to 1¾ miles.

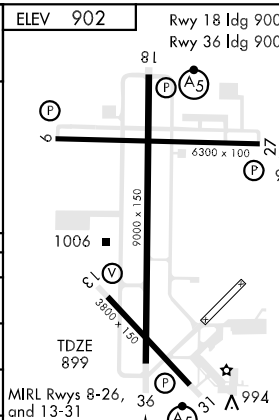
MALSR (A5)

MISSED APPROACH: Climbing left turn to 3500 direct FAR VORTAC and hold. (TACAN aircraft climbing left turn to 3500 direct FAR VORTAC then via FAR R-180 to KINNO/FAR 10 DME and hold south, right turns, 360° inbound.)

ATIS	FARGO APP CON	FARGO TOWER	GND CON	CLNC DEL	ASR
124.5 379.2	120.4 377.15	133.8 290.4	121.9 348.6	121.9 348.6	







CATEGORY	C	D	E
S-36*	1600-1½ 701 (700-1½)	1600-1¾ 701 (700-1¾)	1600-2 701 (700-2)
CIRCLING	1600-2 698 (700-2)	1600-2¼ 698 (700-2¼)	1600-2½ 698 (700-2½)
S-ASR 36	1420/50 521 (600-1)	1420/60	521 (600-1¼)
STABS FIX MINIMUMS			
S-36**	1380/40 481 (500-¾)	1380/50 481 (500-1)	1380/60 481 (500-1¼)
CIRCLING	1380-1½ 478 (500-1½)	1500-2 598 (600-2)	1560-2¼ 658 (700-2¼)

FAF to MAP 9.4 NM

Knots	120	140	160	180	200
Min:Sec	4:42	4:02	3:31	3:08	2:49

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LOC I-AAM	APP CRS	Rwy Idg	9000
108.9	176°	TDZE	900
		Apt Elev	902

ILS or LOC RWY 18

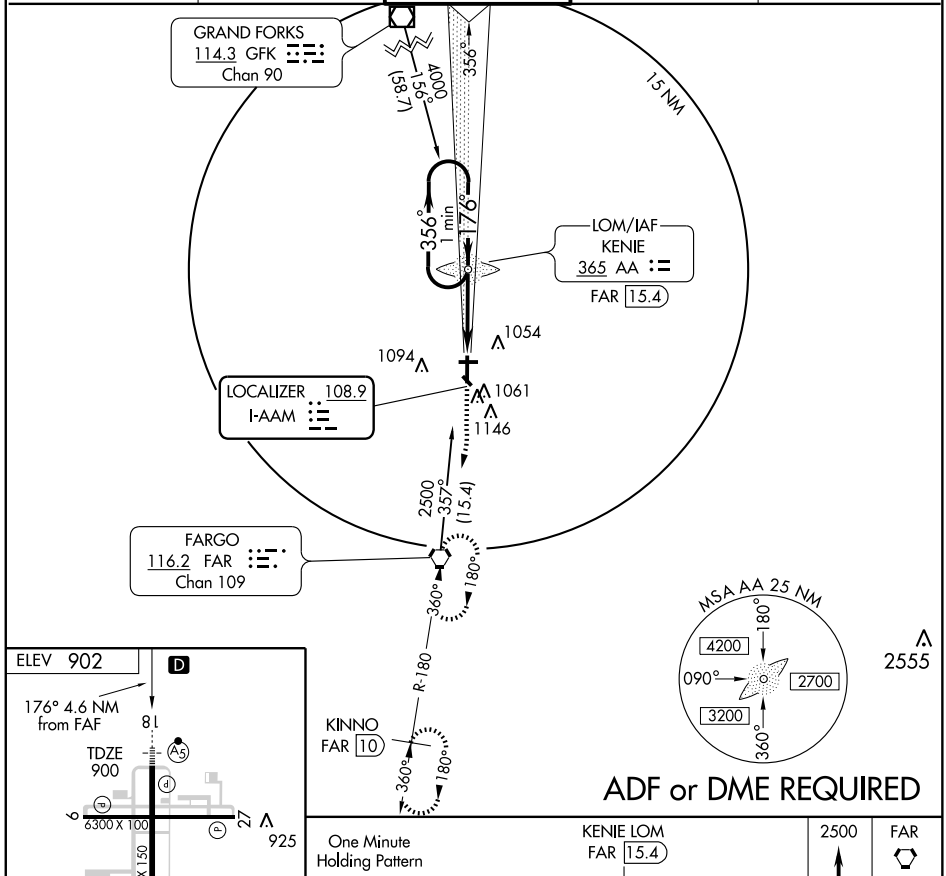
FARGO/HECTOR INTL (FAR)

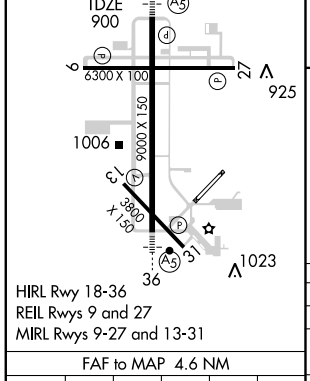
For inoperative MALSR, increase S-ILS 18 Cat E visibility to RVR 4000, and S-LOC 18 Cat E visibility to RVR 5000.
* Visibility CAT A/B/C/D RVR 1800 authorized with the use of FD or AP or HUD to DA.

MALSR

MISSED APPROACH: Climb to 2500 direct FAR VORTAC and hold. (TACAN aircraft climb to 3500 direct FAR VORTAC, then via FAR R-180 to KINNO/FAR 10 DME and hold S, RT, 360° inbound.)

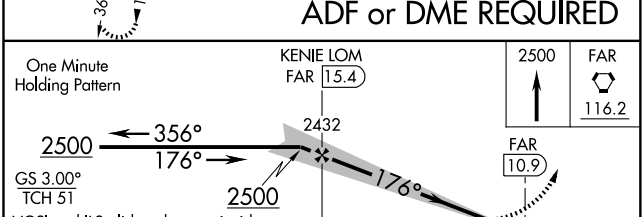
ATIS	FARGO APP CON*	FARGO TOWER	GND CON	CLNC DEL
124.5 379.2	120.4 377.15	133.8 290.4	121.9 348.6	121.9 348.6





HIRL Rwy 18-36
REIL Rwys 9 and 27
MIRL Rwys 9-27 and 13-31

FAF to MAP 4.6 NM					
Knots	60	90	120	150	180
Min:Sec	4:36	3:04	2:18	1:50	1:32



CATEGORY	A	B	C	D	E
S-ILS 18	*1100/24 200 (200-½)				
S-LOC 18	1260/24 360 (400-½)			1260/40 360 (400-¾)	
CIRCLING	1380-1 478 (500-1)		1380-1½ 478 (500-1½)	1500-2 598 (600-2)	1560-2¼ 658 (700-2¼)

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LOC I-FAR	APP CRS	Rwy Idg	9000
110.3	356°	TDZE	899
		Apt Elev	902

ILS or LOC RWY 36

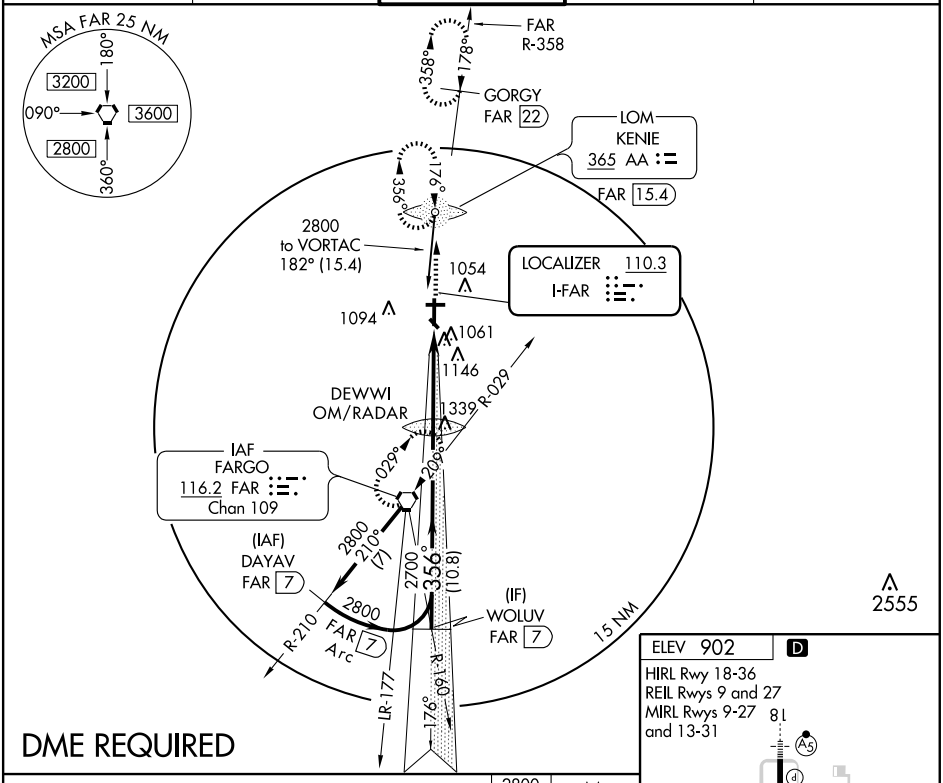
FARGO/HECTOR INTL (FAR)

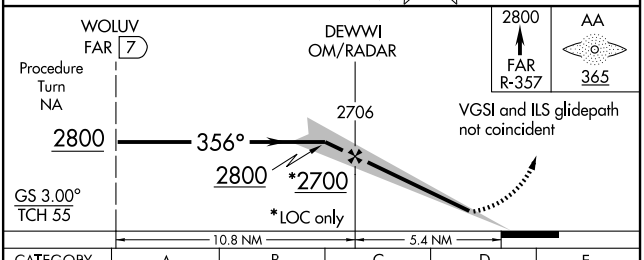
For inoperative MALSR, increase S-ILS 36 Cat E visibility to RVR 4000, and S-LOC 36 Cat E visibility to 1½. # Visibility CAT A/B/C/D RVR 1800 authorized with the use of FD or AP or HUD to DA. ADF or DME required.

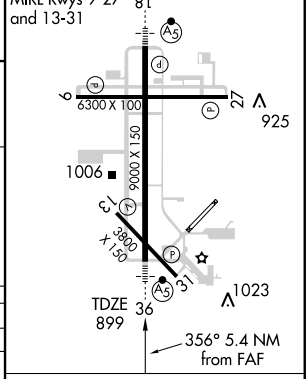
MALSR

MISSED APPROACH: Climb via FAR R-357 to 2800 direct KENIE LOM and hold. (DME aircraft climb to 4000 via FAR R-358 to GORGY/FAR 22 DME and hold N, RT, 178° inbound.)

ATIS	FARGO APP CON★	FARGO TOWER	GND CON	CLNC DEL
124.5 379.2	120.4 377.15	133.8 290.4	121.9 348.6	121.9 348.6







CATEGORY	A	B	C	D	E
S-ILS 36	#1099/24 200 (200-½)				
S-LOC 36	1340/24 441 (500-½)		1340/40 441 (500-¾)	1340/50 441 (500-1)	
CIRCLING	1380-1 478 (500-1)		1380-1½ 478 (500-1½)	1500-2 598 (600-2)	1560-2¼ 658 (700-2¼)

FAF to MAP 5.4 NM

Knots	60	90	120	150	180
Min:Sec	5:24	3:36	2:42	2:10	1:48

NC-1. 08 APR 2010 to 06 MAY 2010

APP CRS	Rwy Idg	6300
086°	TDZE	900
	Apt Elev	902

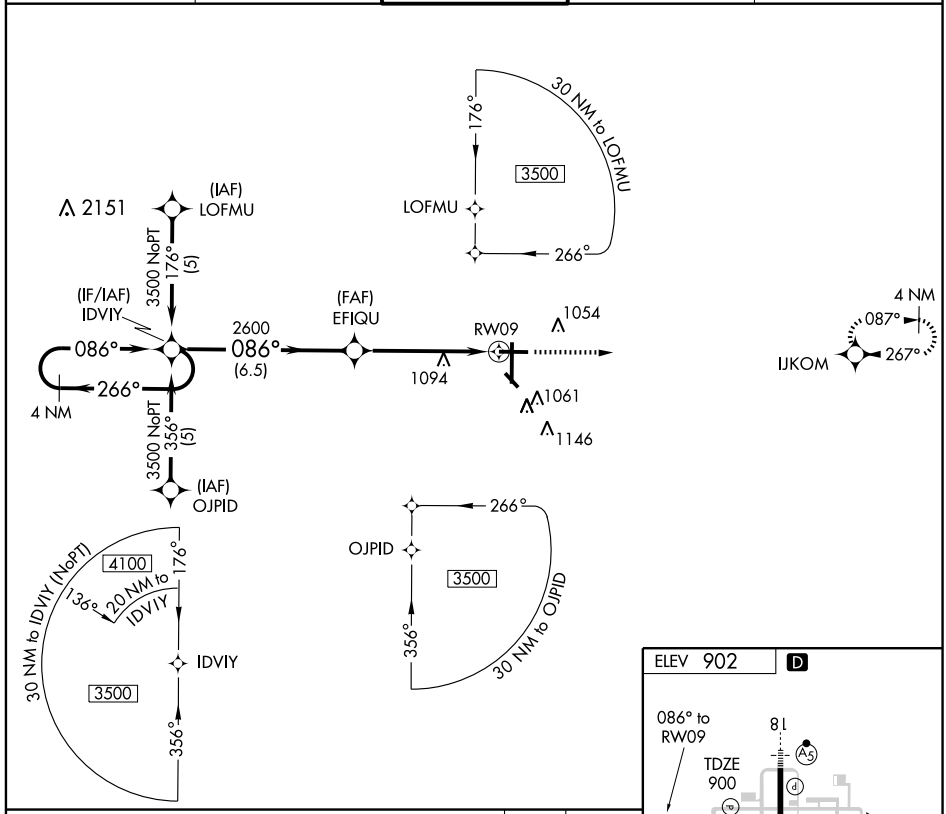
RNAV (GPS) RWY 9

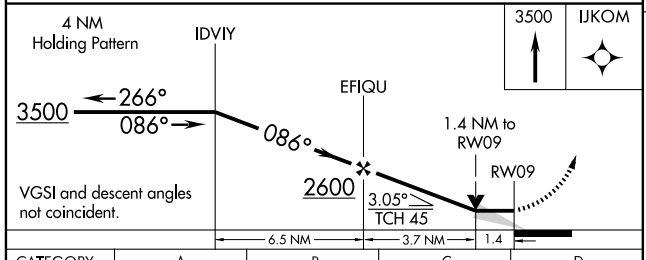
FARGO/HECTOR INTL (FAR)

DME/DME RNP- 0.3 NA.

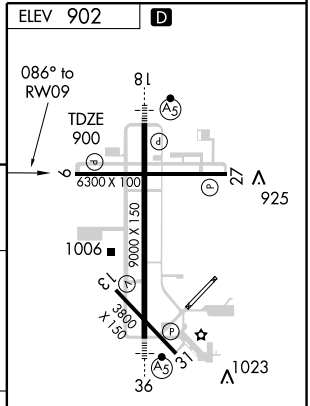
MISSED APPROACH: Climb to 3500 direct IJKOM and hold.

ATIS	FARGO APP CON★	FARGO TOWER	GND CON	CLNC DEL
124.5 379.2	120.4 377.15	133.8 290.4	121.9 348.6	121.9 348.6





CATEGORY	A	B	C	D
LNAV MDA	1360-1	460 (500-1)	1360-1¼ 460 (500-1¼)	1360-1½ 460 (500-1½)
CIRCLING	1380-1	478 (500-1)	1380-1½ 478 (500-1½)	1500-2 598 (600-2)



HIRL Rwy 18-36
REIL Rwys 9 and 27
MIRL Rwys 9-27 and 13-31

NC-1. 08 APR 2010 to 06 MAY 2010

WAAS	APP CRS	Rwy Idg	9000
CH 40006	176°	TDZE	900
W18A		Apt Elev	902

RNAV (GPS) RWY 18

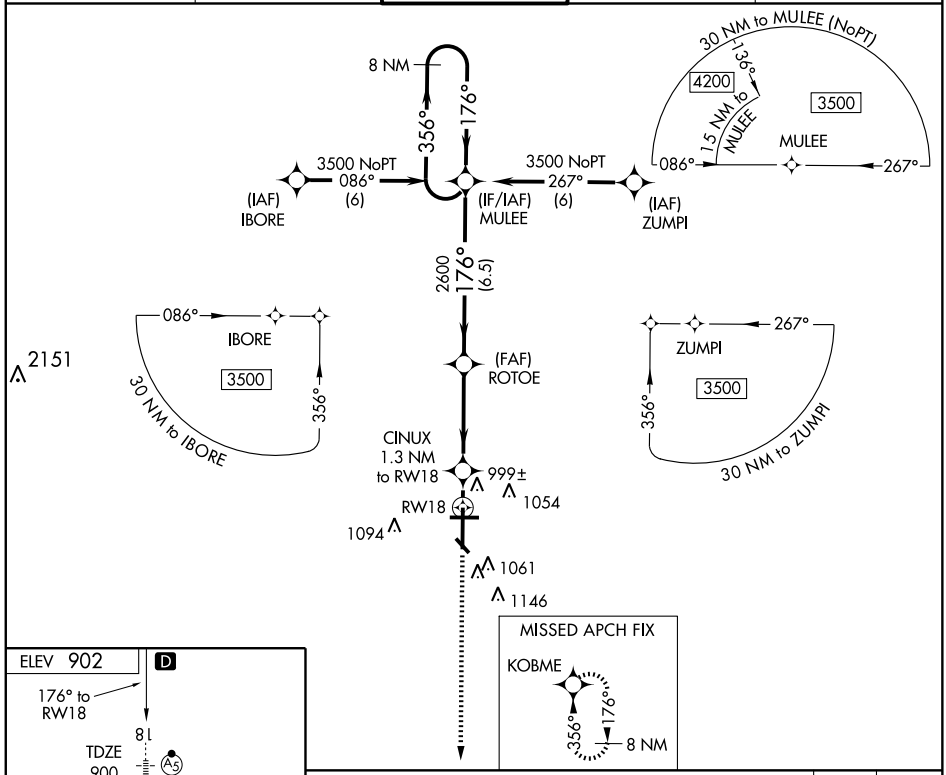
FARGO/HECTOR INTL (FAR)

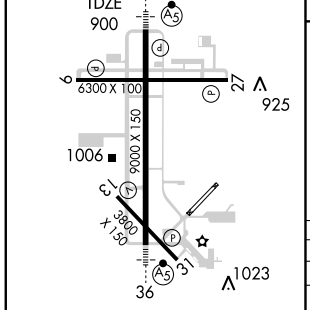
For inoperative MALSR, increase LPV Cat E visibility to RVR 4000 and LNAV/VNAV Cat E and LNAV Cat D and E to RVR 6000.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (116°F). DME/DME RNP-0.3 NA.

MALSR

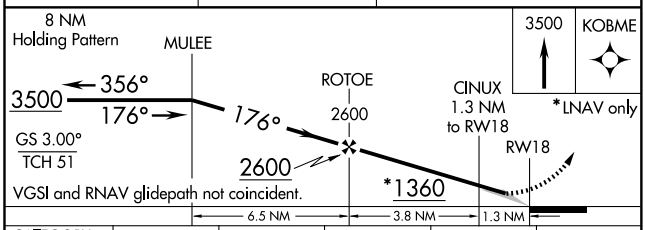
MISSED APPROACH: Climb to 3500 direct KOBME and hold.

ATIS	FARGO APP CON★	FARGO TOWER	GND CON	CLNC DEL
124.5 379.2	120.4 377.15	133.8 290.4	121.9 348.6	121.9 348.6





HIRL Rwy 18-36
REIL Rwys 9 and 27
MIRL Rwys 9-27 and 13-31



CATEGORY	A	B	C	D	E
LPV DA	1100/24 200 (200-½)				
LNAV/VNAV DA	1272/40 372 (400-¾)				
LNAV MDA	1260/24 360 (400-½)			1260/50 360 (400-1)	
CIRCLING	1380-1 478 (500-1)		1380-1½ 478 (500-1½)	1500-2 598 (600-2)	1560-2¼ 658 (700-2¼)

NC-1. 08 APR 2010 to 06 MAY 2010

APP CRS	Rwy ldg	6300
267°	TDZE	898
	Apt Elev	902

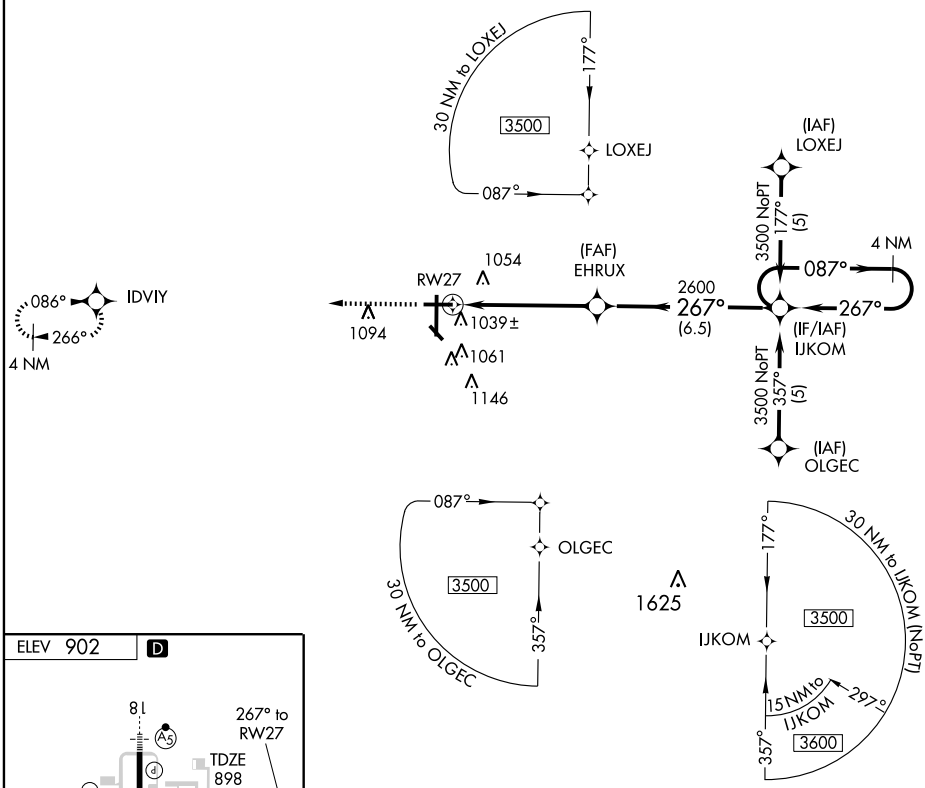
RNAV (GPS) RWY 27

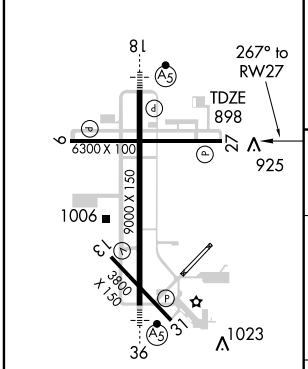
FARGO/HECTOR INTL (FAR)

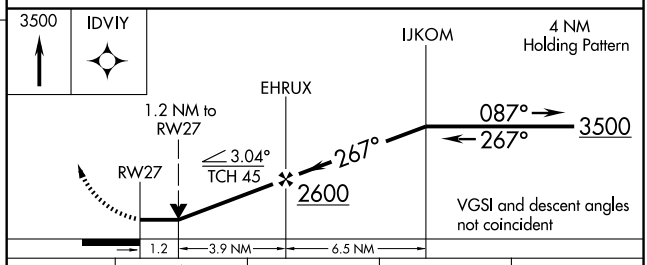
DME/DME RNP- 0.3 NA.

MISSED APPROACH: Climb to 3500 direct IDVIY and hold.

ATIS	FARGO APP CON★	FARGO TOWER	GND CON	CLNC DEL
124.5 379.2	120.4 377.15	133.8 290.4	121.9 348.6	121.9 348.6







CATEGORY	A	B	C	D
LNAV MDA	1300-1 402 (400-1)		1300-1¼ 402 (400-1¼)	
CIRCLING	1380-1 478 (500-1)		1380-1½ 478 (500-1½)	1500-2 598 (600-2)

HIRL Rwy 18-36
REIL Rwys 9 and 27
MIRL Rwys 9-27 and 13-31

NC-1. 08 APR 2010 to 06 MAY 2010

WAAS	APP CRS	Rwy Idg	9000
CH 50106	356°	TDZE	899
W36A		Apt Elev	902

RNAV (GPS) RWY 36

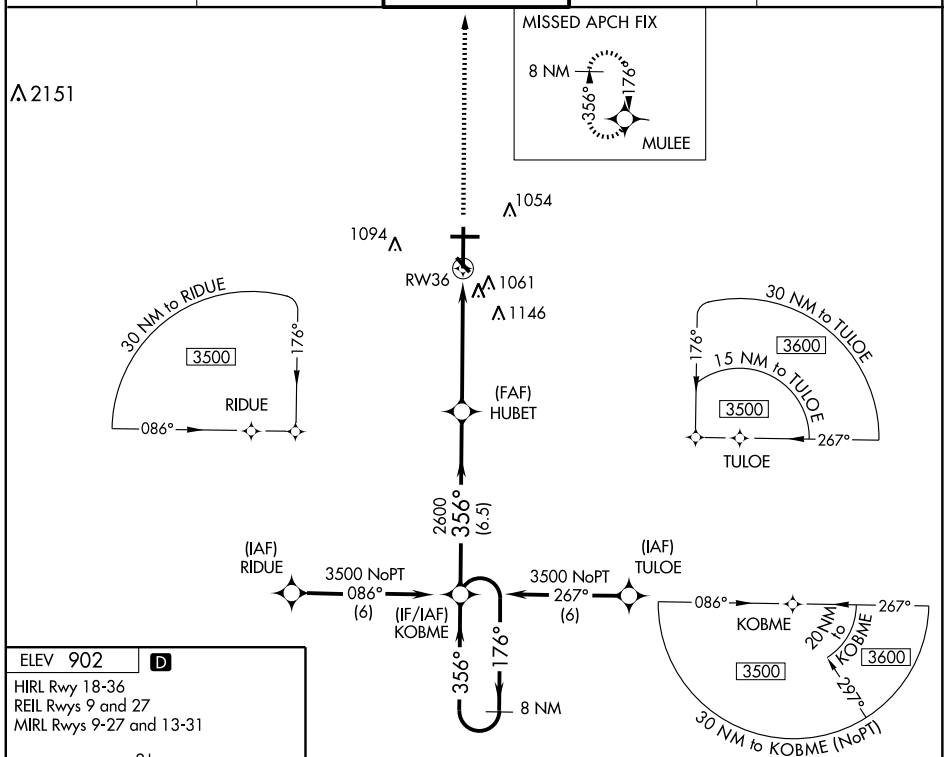
FARGO/HECTOR INTL (FAR)

T A W — DME/DME RNP -0.3 NA. Baro-VNAV NA below -16°C (4°F). For inoperative MALSR, increase LPV Cat E visibility to RVR 4000, and increase LNAV/VNAV and LNAV Cat E visibility to 1¾ mile.

MALSR

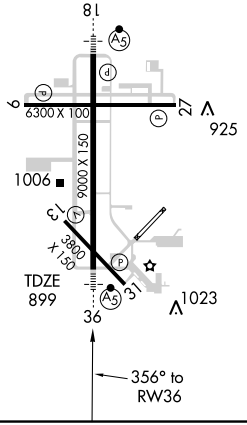
MISSED APPROACH: Climb to 3500 direct MULEE and hold.

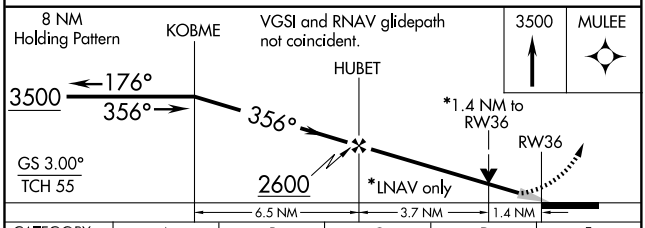
ATIS	FARGO APP CON★	FARGO TOWER	GND CON	CLNC DEL
124.5 379.2	120.4 377.15	133.8 290.4	121.9 348.6	121.9 348.6



ELEV 902 D

HIRL Rwy 18-36
REIL Rwys 9 and 27
MIRL Rwys 9-27 and 13-31





CATEGORY	A	B	C	D	E
LPV DA	1150/24 251 (300-½)				
LNAV/VNAV DA	1360/50 461 (500-1)				1360/60 461 (500-1¼)
LNAV MDA	1420/24 521 (600-½)		1420/50 521 (600-1)	1420/60 521 (600-1¼)	
CIRCLING	1420-1½ 518 (600-1½)			1500-2 598 (600-2)	1560-2¼ 658 (700-2¼)

NC-1, 08 APR 2010 to 06 MAY 2010

VORTAC FAR	APP CRS	Rwy Idg	9000
116.2	179°	TDZE	900
Chan 109		Apt Elev	902

VOR/DME or TACAN RWY 18

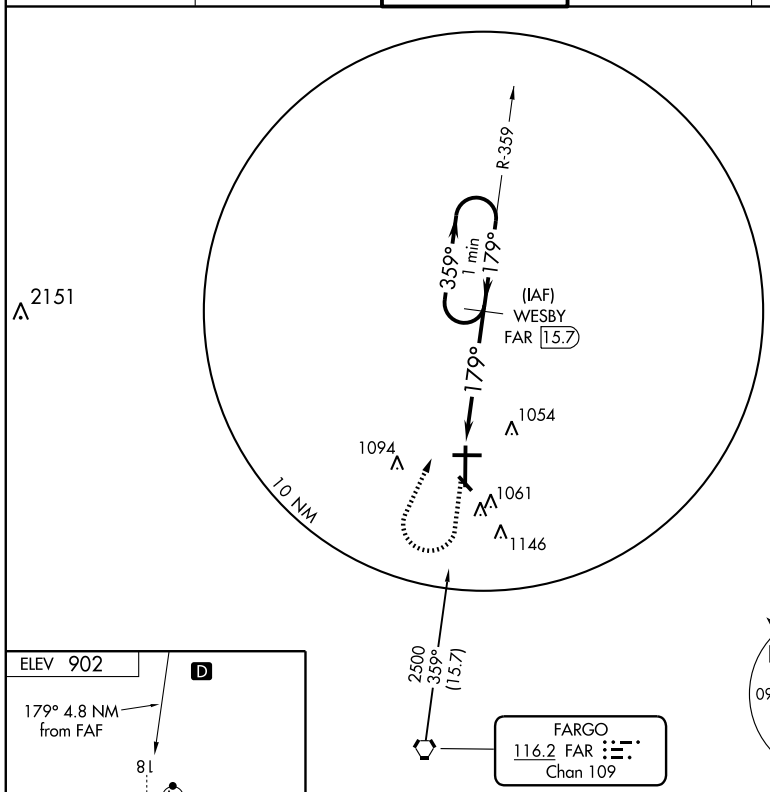
FARGO/HECTOR INTL (FAR)

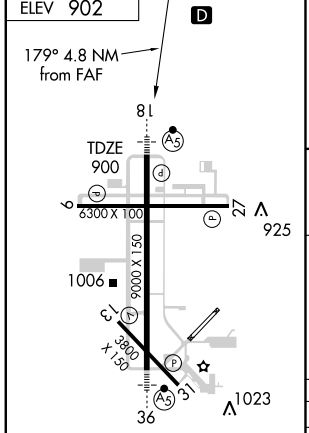
For inoperative MALSR, increase Cat D visibility to RVR 6000 and Cat E to 1½.

MALSR

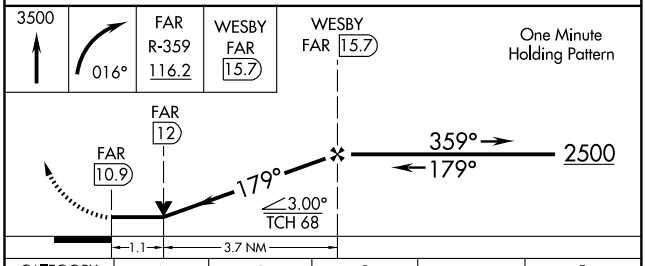
MISSED APPROACH: Climb to 3500 then right turn via heading 016° and FAR R-359 to WESBY/15.7 DME and hold.

ATIS	FARGO APP CON★	FARGO TOWER	GND CON	CLNC DEL
124.5 379.2	120.4 377.15	133.8 290.4	121.9 348.6	121.9 348.6





HIRL Rwy 18-36
REIL Rwys 9 and 27
MIRL Rwys 9-27 and 13-31



CATEGORY	A	B	C	D	E
S-18	1320/24	420 (500-½)	1320/40 420 (500-¾)	1320/50	420 (500-1)
CIRCLING	1380-1	478 (500-1)	1380-1½ 478 (500-1½)	1500-2 598 (600-2)	1560-2¼ 658 (700-2¼)

NC-1. 08 APR 2010 to 06 MAY 2010

VORTAC FAR	APP CRS	Rwy Idg	9000
116.2	360°	TDZE	899
Chan 109		Apt Elev	902

VOR or TACAN RWY 36

FARGO/HECTOR INTL (FAR)

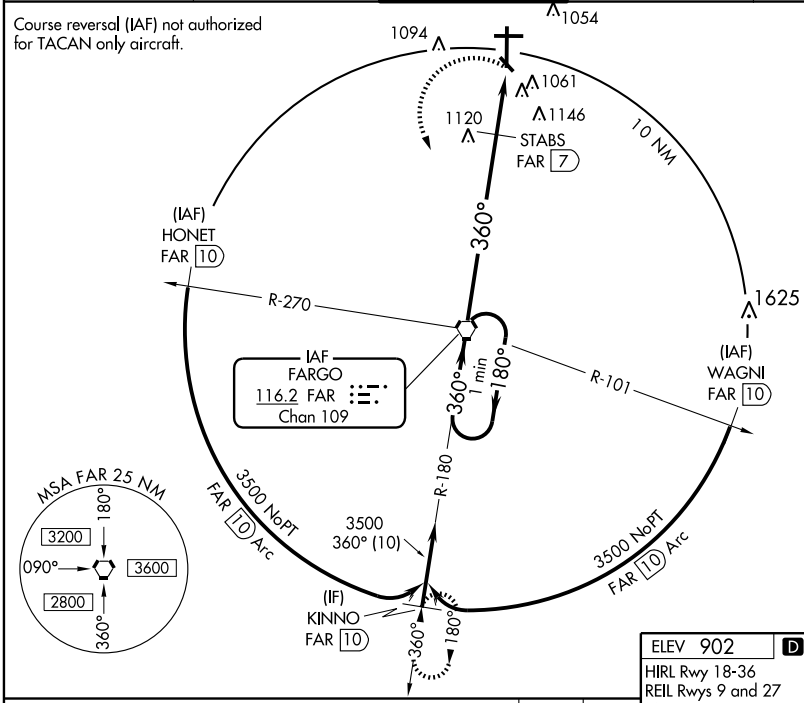
VOR MINIMUMS: For inoperative MALSR, increase S-36 Cat E visibility to 2½ miles. STABS FIX MINIMUMS: For inoperative MALSR, increase S-36 Cat E visibility to 1¾ mile.

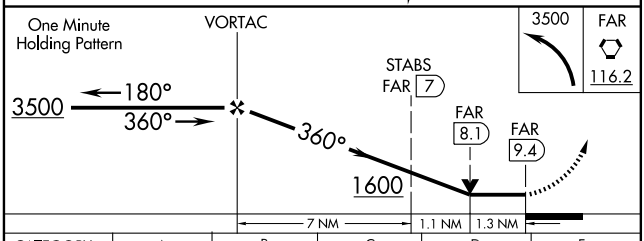
MALSR

MISSED APPROACH: Climbing left turn to 3500 direct FAR VORTAC and hold. (TACAN aircraft climbing left turn to 3500 direct FAR VORTAC, then via FAR R-180 to KINNO/FAR 10 DME and hold South, right turns, 360° inbound.)

ATIS	FARGO APP CON★	FARGO TOWER	GND CON	CLNC DEL
124.5 379.2	120.4 377.15	133.8 290.4	121.9 348.6	121.9 348.6

Course reversal (IAF) not authorized for TACAN only aircraft.

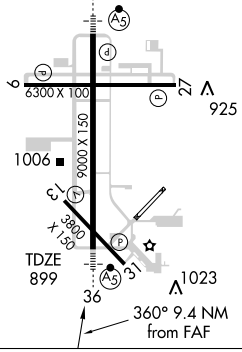




CATEGORY	A	B	C	D	E
S-36	1600/24	701 (700-½)	1600-1½ 701 (700-1½)	1600-1¾ 701 (700-1¾)	1600-2 701 (700-2)
CIRCLING	1600-1	698 (700-1)	1600-2 698 (700-2)	1600-2¼ 698 (700-2¼)	1600-2½ 698 (700-2½)
STABS FIX MINIMUMS					
S-36	1380/24	481 (500-½)	1380/40 481 (500-¾)	1380/50 481 (500-1)	1380/60 481 (500-1¼)
CIRCLING	1380-1	478 (500-1)	1380-1½ 478 (500-1½)	1500-2 598 (600-2)	1560-2¼ 658 (700-2¼)

ELEV 902 D

HIRL Rwy 18-36
REIL Rwys 9 and 27
MIRL Rwys 9-27 and 13-31



FAF to MAP 9.4 NM					
Knots	60	90	120	150	180
Min:Sec	9:24	6:16	4:42	3:46	3:08

NC-1. 08 APR 2010 to 06 MAY 2010

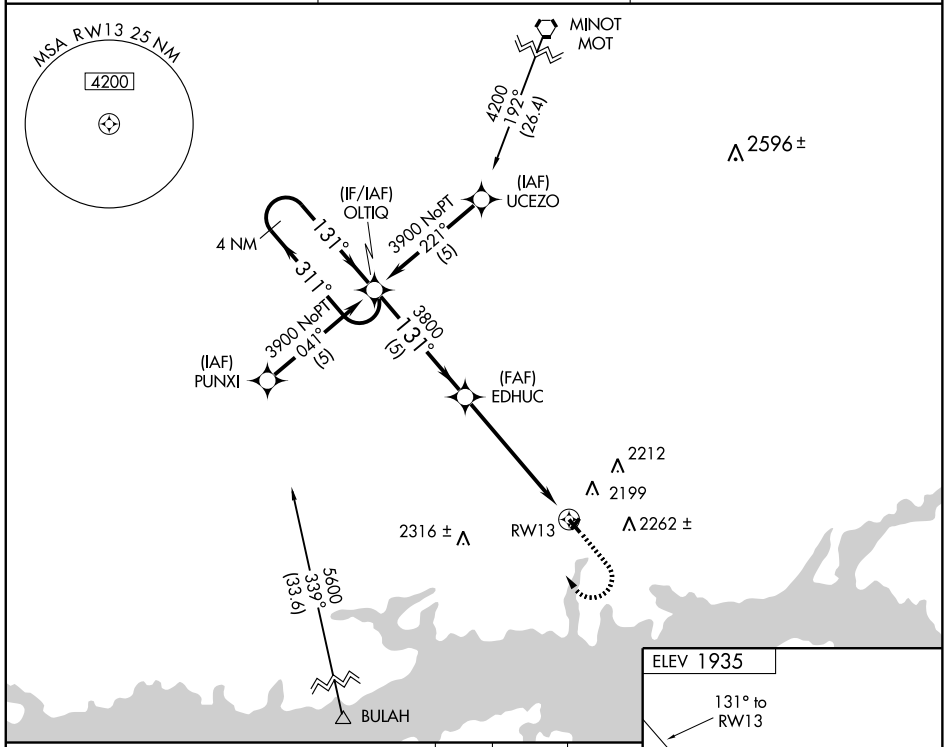
APP CRS		
131°	Rwy Idg	3700
	TDZE	1935
	Apt Elev	1935

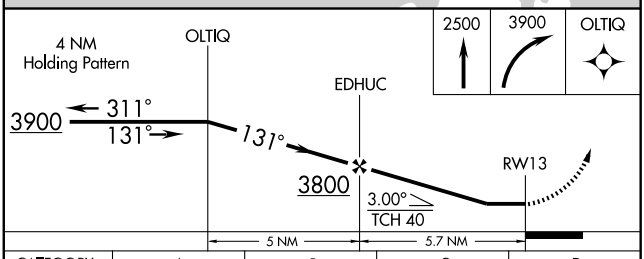
RNAV (GPS) RWY 13
GARRISON MUNI (D05)

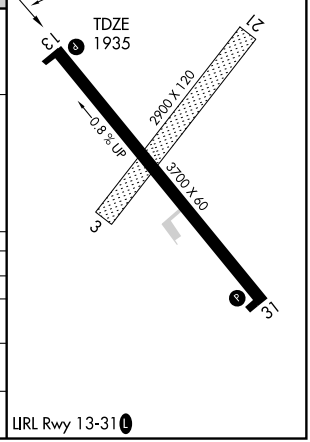
NA — DME/DME RNP 0.3- NA.
Use Minot Intl altimeter setting.

MISSED APPROACH: Climb to 2500 then climbing right turn to 3900 direct OLTIQ WP and hold.

MINOT ASOS	MINNEAPOLIS CENTER	CTAF
118.725	127.6 279.6	122.9 L







CATEGORY	A	B	C	D
GLS DA	NA			
LNAV/VNAV DA	NA			
LNAV MDA	2500-1 565 (600-1)		NA	
CIRCLING	2680-1 745 (800-1)	2680-1¼ 745 (800-1¼)	NA	

LIRL Rwy 13-31 L

NC-1. 08 APR 2010 to 06 MAY 2010

APP CRS	Rwy Idg	3700
311°	TDZE	1925
	Apt Elev	1935

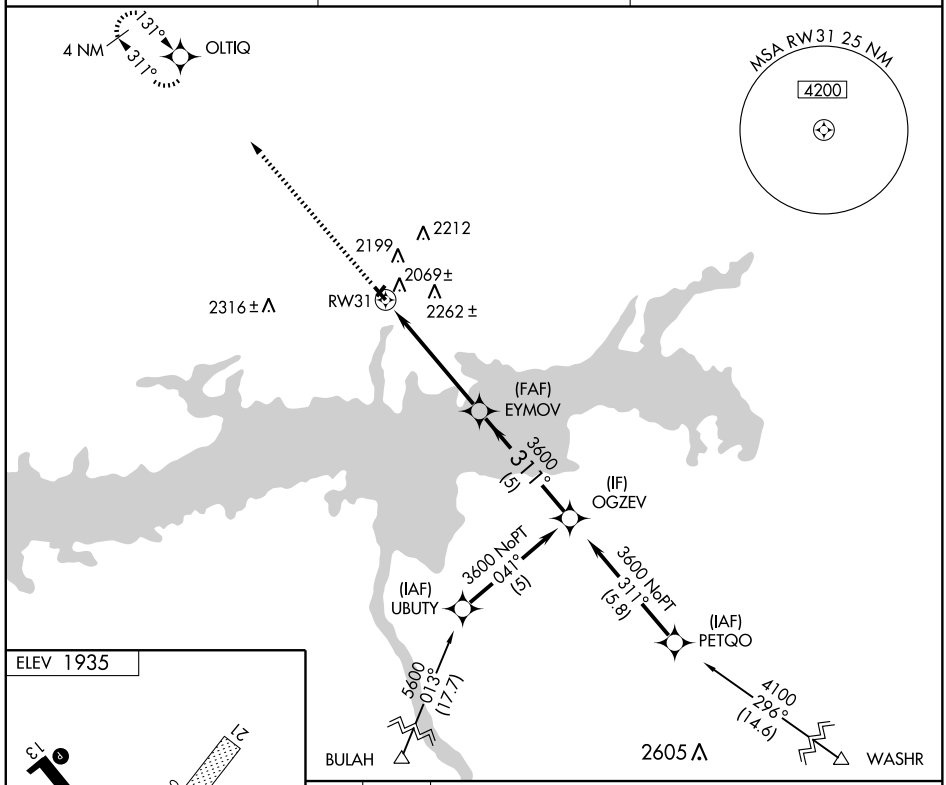
RNAV (GPS) RWY 31
GARRISON MUNI (DØ5)

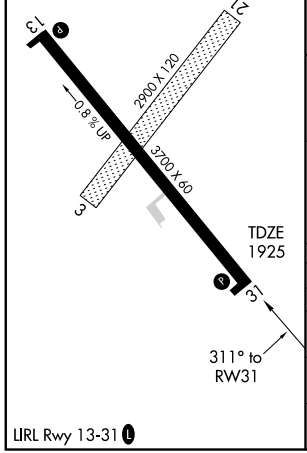
NA

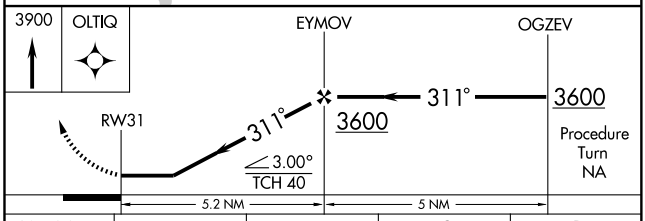
DME/DME RNP- 0.3 NA.
Use Minot Intl altimeter setting.

MISSED APPROACH: Climb to 3900 direct OLTIQ and hold.

MINOT ASOS	MINNEAPOLIS CENTER	CTAF
118.725	127.6 279.6	122.9 L







CATEGORY	A	B	C	D
GLS DA	NA			
LNAV/VNAV DA	NA			
LNAV MDA	2560-1 635 (700-1)		NA	
CIRCLING	2680-1 745 (800-1)	2680-1¼ 745 (800-1¼)	NA	

LIRL Rwy 13-31 L

NC-1. 08 APR 2010 to 06 MAY 2010

APP CRS	Rwy Idg	3898
174°	TDZE	821
	Apt Elev	824

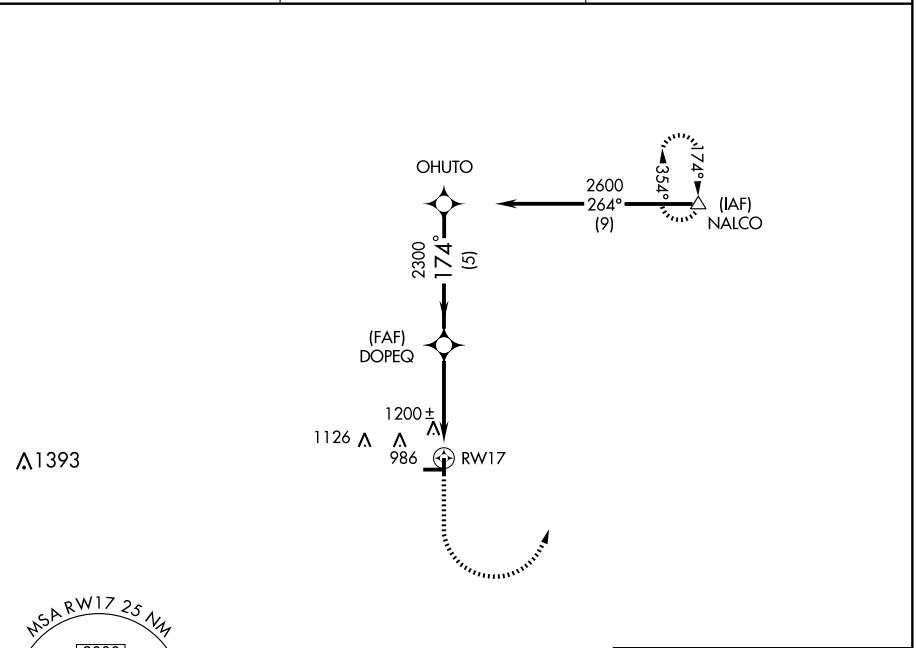
GPS RWY 17

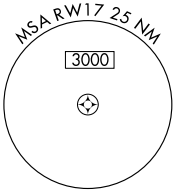
GRAFTON/ HUTSON FIELD (GAF)

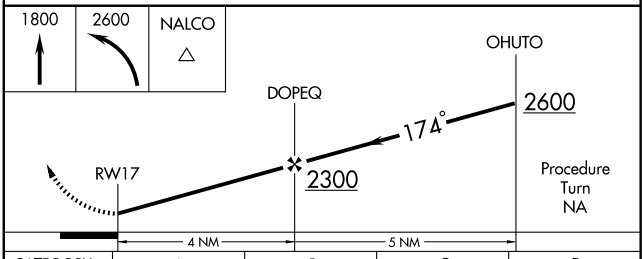
T
NA Use Grand Forks Intl altimeter setting.

MISSED APPROACH: Climb to 1800, then climbing left turn to 2600 direct NALCO WP and hold.

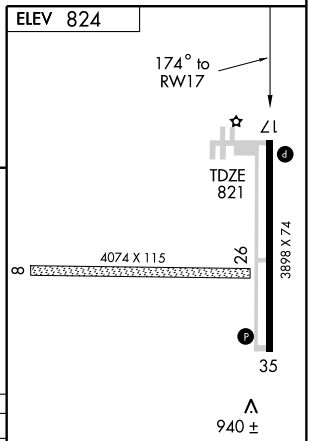
AWOS-3	GRAND FORKS APP CON	UNICOM
118.625	118.1 318.1	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-17	1520-1 699 (700-1)		1520-2 699 (700-2)	NA
CIRCLING	1580-1 756 (800-1)	1580-1¼ 756 (800-1¼)	1580-2¼ 756 (800-2¼)	NA



MIRL Rwy 17-35 L

NC-1. 08 APR 2010 to 06 MAY 2010

APP CRS	Rwy Idg	3898
354°	TDZE	820
	Apt Elev	824

GPS RWY 35

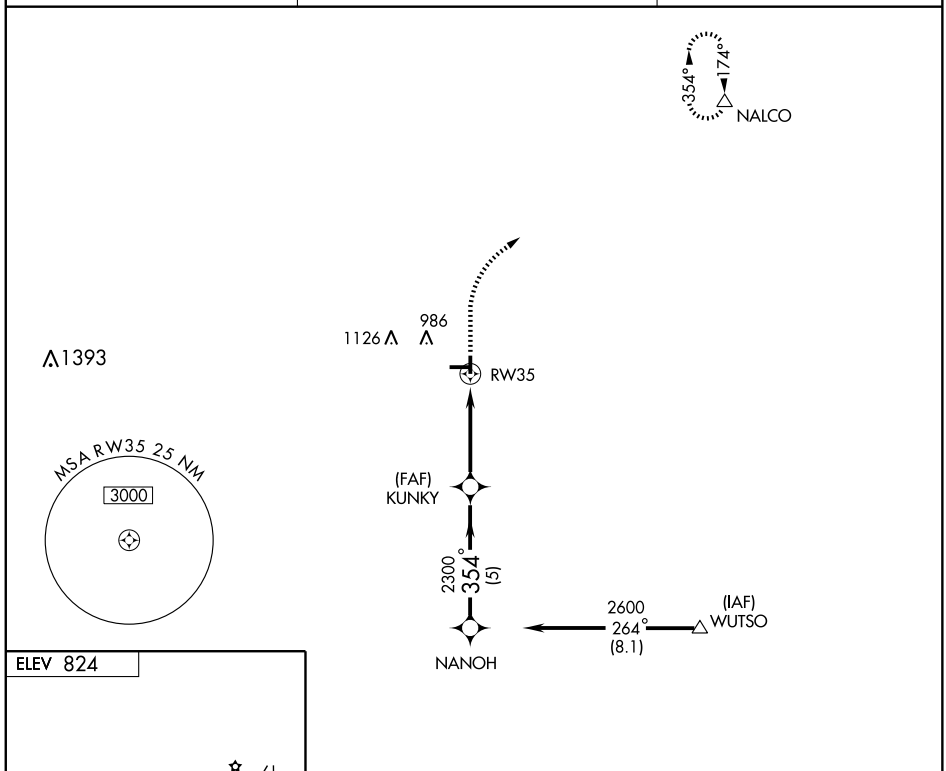
GRAFTON/ HUTSON FIELD (GAF)

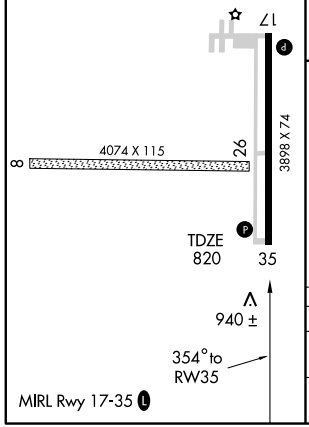
T
NA

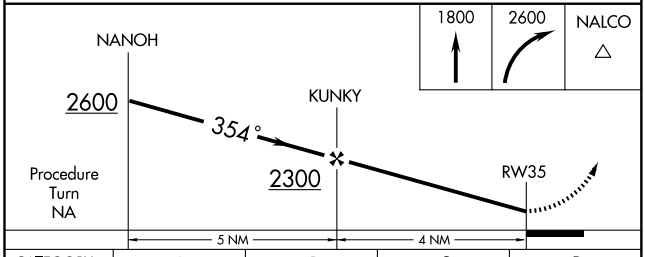
Use Grand Forks Intl altimeter setting.

MISSED APPROACH: Climb to 1800, then climbing right turn to 2600 direct NALCO WP and hold.

AWOS-3	GRAND FORKS APP CON	UNICOM
118.625	118.1 318.1	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-35	1260-1 440 (500-1)		1260-1¼ 440 (500-1¼)	NA
CIRCLING	1580-1 756 (800-1)	1580-1¼ 756 (800-1¼)	1580-2 ¼ 756 (800-2¼)	NA

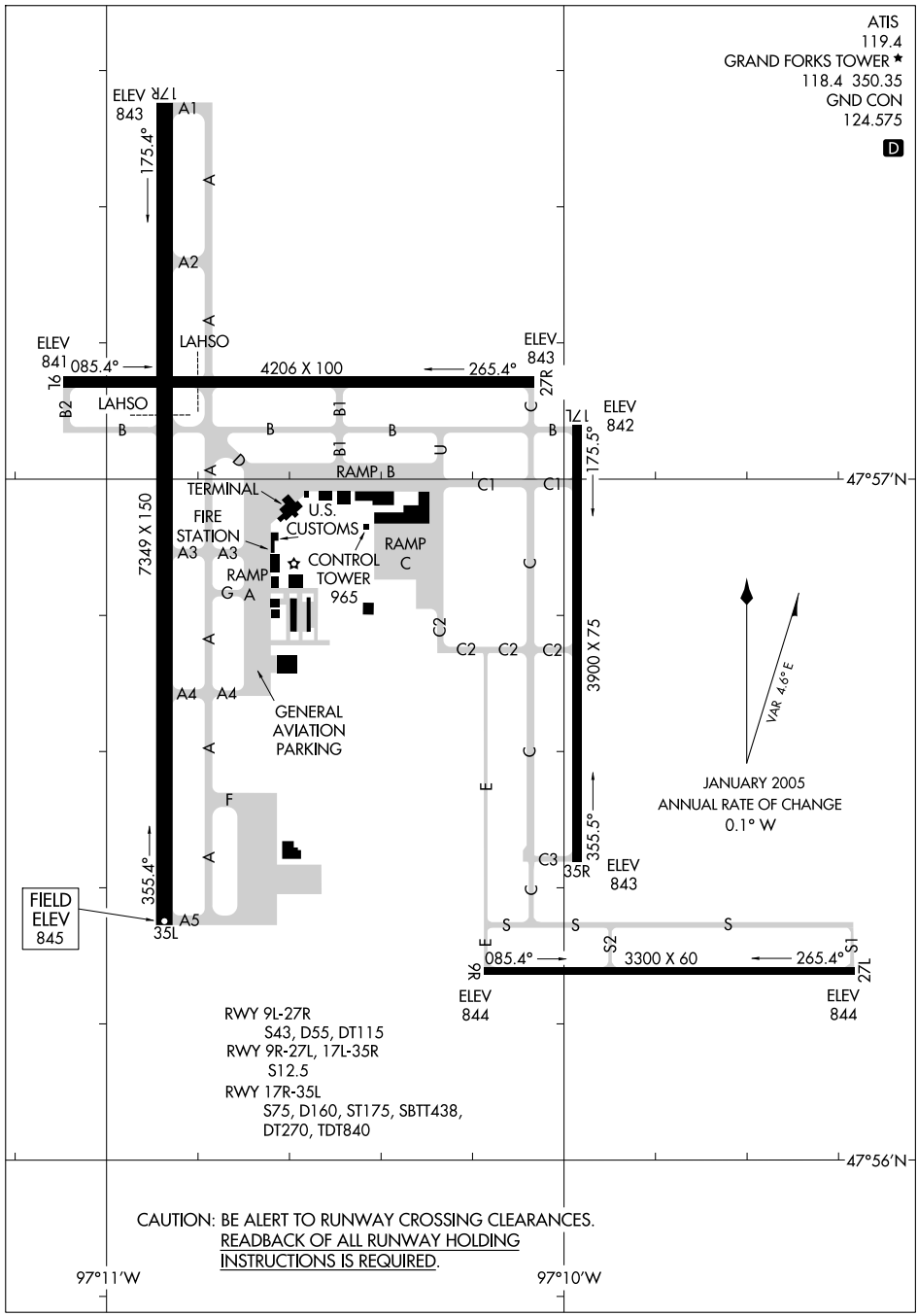
NC-1. 08 APR 2010 to 06 MAY 2010

09295

AIRPORT DIAGRAM

AL-5187 (FAA)

GRAND FORKS INTL (GFK)
GRAND FORKS, NORTH DAKOTA



NC-1, 08 APR 2010 to 06 MAY 2010

LOC/DME I-GFK	APP CRS	Rwy Idg	7349
109.1	354°	TDZE	845
Chan 28		Apt Elev	845

ILS or LOC RWY 35L
GRAND FORKS INTL (GFK)

If local altimeter setting not received, use Crookston altimeter setting and increase all DAs/MDAs 80 feet. Procedure turn NA for Cat. E aircraft. VDP NA with Crookston altimeter setting.
For inoperative MALSR, increase S-ILS Cat. E visibility to 1.

MALSR

MISSED APPROACH:
Climb to 3600 then right turn direct GFK VOR/DME and hold.

ATIS	GRAND FORKS APP CON	GRAND FORKS TOWER ★	GND CON	UNICOM
119.4	118.1 318.1	118.4 (CTAF) L 120.55 350.35	124.575	122.95

ADF, DME or RADAR REQUIRED

FAF to MAP 5.6 NM					
Knots	60	90	120	150	180
Min:Sec	5:36	3:44	2:48	2:14	1:52

CATEGORY	A	B	C	D	E
S-ILS 35L	1045-½ 200 (200-½)				
S-LOC 35L	1160- ½ 315 (400-½)			1160- ¾ 315 (400-¾)	
CIRCLING	1280-1 435 (500-1)	1300-1 455 (500-1)	1300-1¼ 455 (500-1¼)	1400-2 555 (600-2)	1520-2½ 675 (700-2½)

NC-1. 08 APR 2010 to 06 MAY 2010

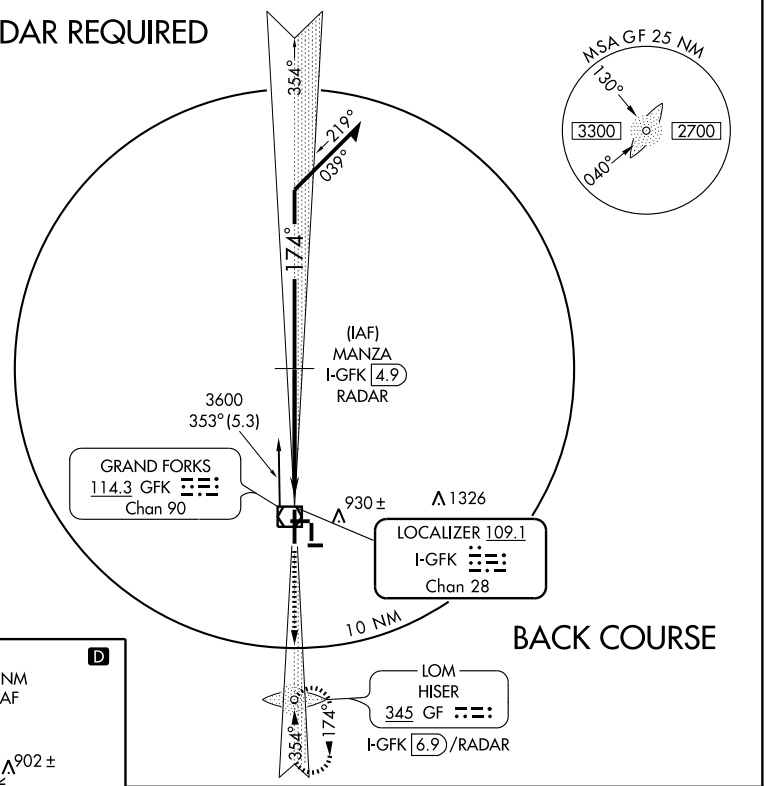
LOC/DME I-GFK	APP CRS	Rwy Idg	7349
109.1	174°	TDZE	842
Chan 28		Apt Elev	844

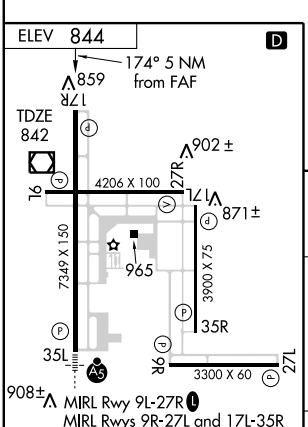
LOC BC RWY 17R
GRAND FORKS INTL (GFK)

MISSED APPROACH: Climb to 2600 via I-GFK south course to HISER LOM/I-GFK 6.9 DME/RADAR and hold.

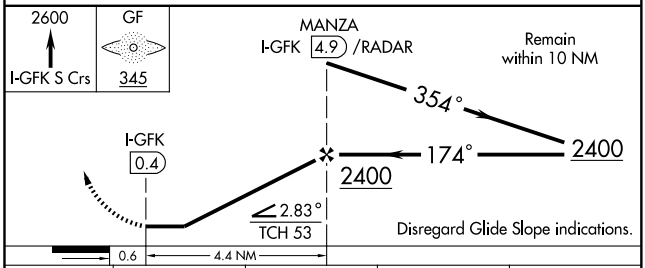
ATIS	GRAND FORKS APP CON	GRAND FORKS TOWER★	GND CON	UNICOM
119.4	118.1 318.1	118.4 (CTAF) L 120.55 350.35	124.575	122.95

DME or RADAR REQUIRED





FAF to MAP 4.4 NM					
Knots	60	90	120	150	180
Min:Sec	4:24	2:56	2:12	1:46	1:28



CATEGORY	A	B	C	D
S-17R	1200-1 358 (400-1)			1200-1¼ 358 (400-1¼)
CIRCLING	1400-1 556 (600-1)		1400-1½ 556 (600-1½)	1400-2 556 (600-2)

NC-1. 08 APR 2010 to 06 MAY 2010

WAAS CH 58104 W09A	APP CRS 084°	Rwy Idg 4206 TDZE 843 Apt Elev 845

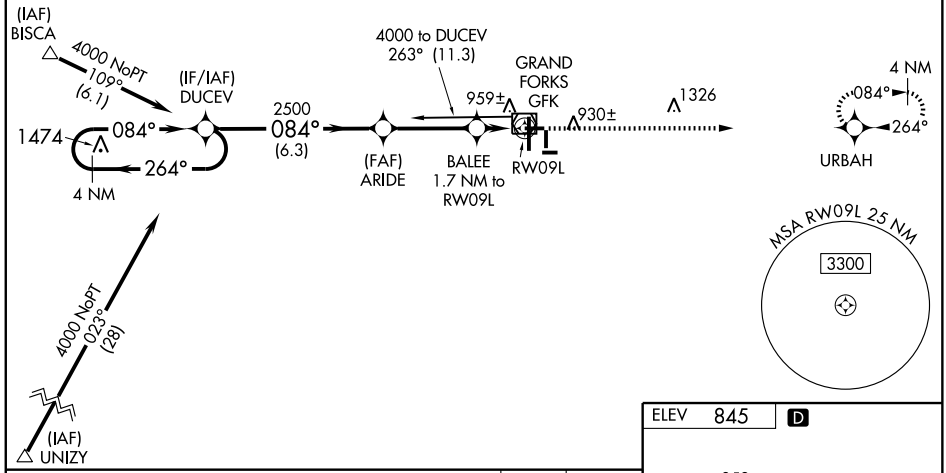
RNAV (GPS) RWY 9L
GRAND FORKS INTL (GFK)

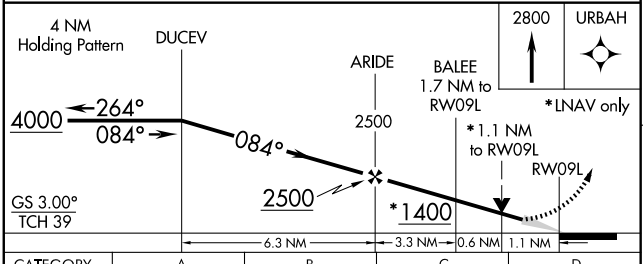
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (116°F).
DME/DME RNP- 0.3 NA.
When local altimeter setting not received, use Crookston altimeter setting and increase all DA 62 feet and all MDA 80 feet, increase LNAV/VNAV all Cats and LNAV Cat C/D visibilities¼ mile.
Baro-VNAV and VDP NA when using Crookston altimeter setting.

MISSED APPROACH: Climb to 2800 direct URBAH and hold.

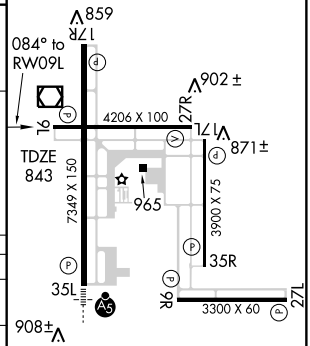
ATIS	GRAND FORKS APP CON	GRAND FORKS TOWER★	GND CON	UNICOM
119.4	118.1 318.1	118.4 (CTAF) L 120.55 350.35	124.575	122.95

Procedure NA for arrivals at GFK VOR/DME via V55 northeast bound.





CATEGORY	A	B	C	D
LPV DA	1093-1 250 (300-1)			
LNAV/VNAV DA	1238-1½ 395 (400-1½)			
LNAV MDA	1220-1 377 (400-1)			1220-1¼ 377 (400-1¼)
CIRCLING	1280-1 435 (500-1)	1300-1 455 (500-1)	1300-1½ 455 (500-1½)	1400-2 555 (600-2)



MIRL Rwy 9L-27R L
MIRL Rwys 9R-27L and 17L-35R
HIRL Rwy 17R-35L L
REIL Rwys 17R and 27R L

NC-1. 08 APR 2010 to 06 MAY 2010

WAAS	APP CRS	Rwy Idg	7349
CH 63199	174°	TDZE	843
W17A		Apt Elev	845

RNAV (GPS) RWY 17R

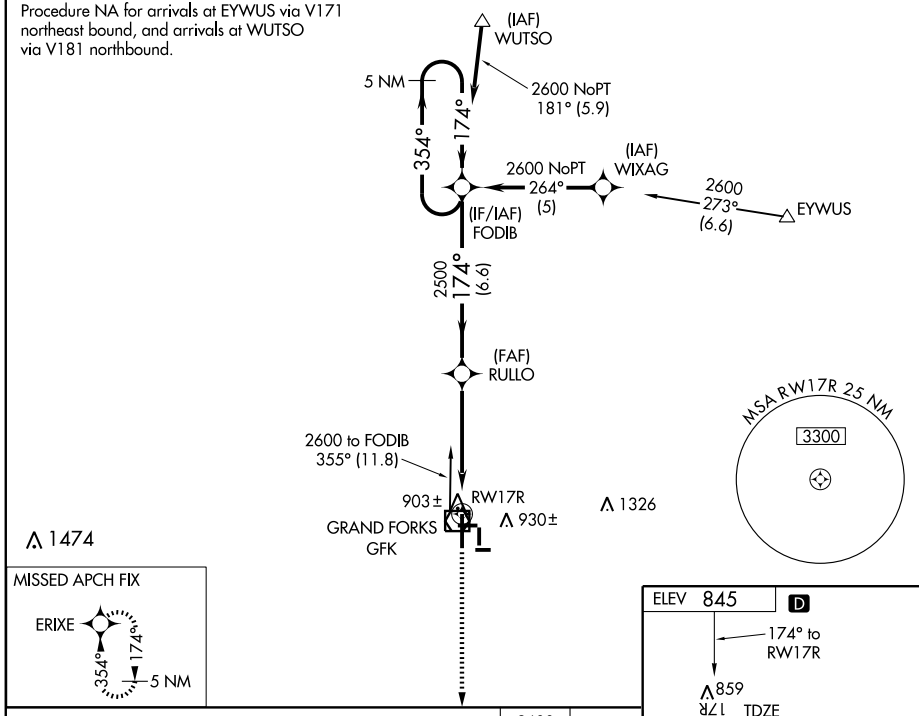
GRAND FORKS INTL (GFK)

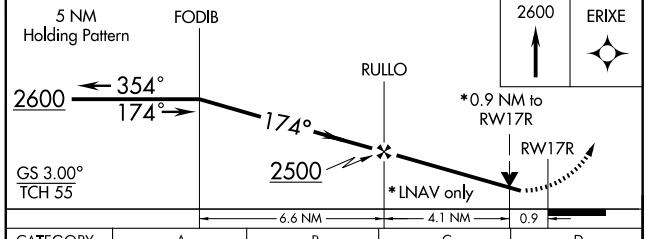
DME/DME RNP -0.3 NA.
If local altimeter setting not received use Crookston altimeter setting and increase all DAs /MDAs 80 feet.
Baro-VNAV NA with Crookston altimeter setting.
VDP NA with Crookston altimeter setting.
Baro-VNAV NA below -16°C (5°F).

MISSED APPROACH: Climb to 2600 direct ERIXE and hold.

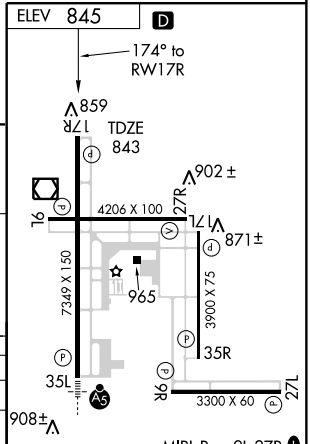
ATIS	GRAND FORKS APP CON	GRAND FORKS TOWER★	GND CON	UNICOM
119.4	118.1 318.1	118.4 (CTAF) L 120.55 350.35	124.575	122.95

Procedure NA for arrivals at EYWUS via V171 northeast bound, and arrivals at WUTSO via V181 northbound.





CATEGORY	A	B	C	D
LPV DA	1093-¾	250 (300-¾)		
LNAV/VNAV DA	1153-1	310 (400-1)		
LNAV MDA	1180-1	337 (400-1)		
CIRCLING	1280-1 435 (500-1)	1300-1 455 (500-1)	1300-1½ 455 (500-1½)	1400-2 555 (600-2)



NC-1. 08 APR 2010 to 06 MAY 2010

WAAS	APP CRS		
CH 78104	264°	Rwy Idg	4206
W27A		TDZE	843
		Apt Elev	845

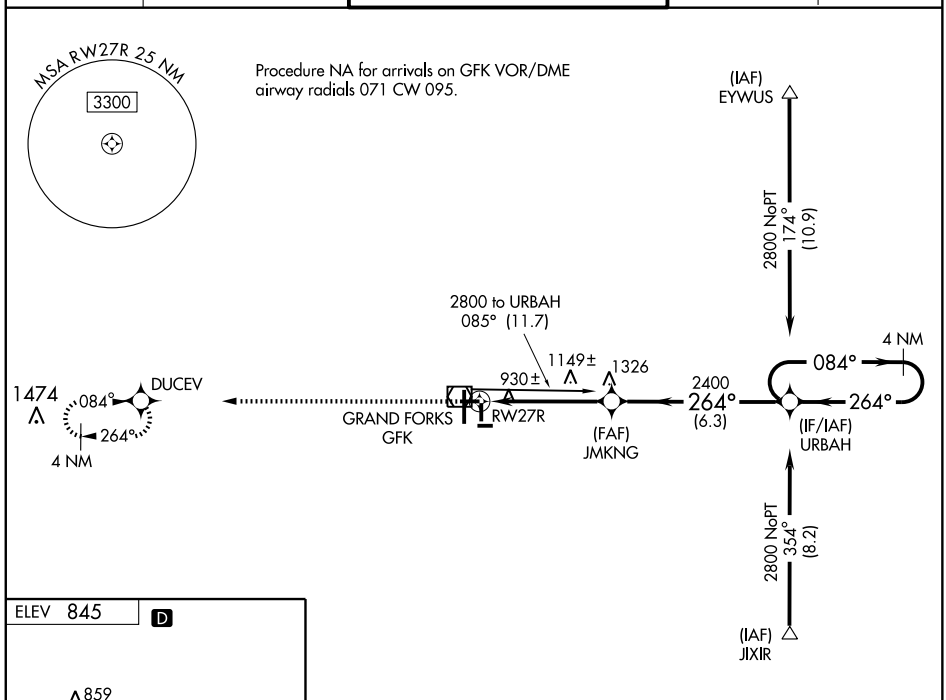
RNAV (GPS) RWY 27R

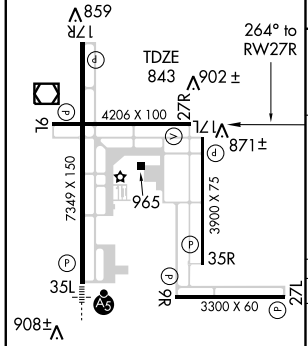
GRAND FORKS INTL (GFK)

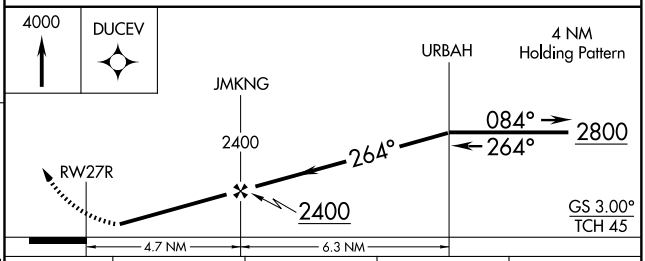
DME/DME RNP-0.3 NA.
Visibility reduction by helicopters NA.
When local altimeter setting not received, use Crookston altimeter setting and increase all DA 62 feet and all MDA 80 feet.
Increase LNAV and Circling Cat C and D visibility ¼ mile.

MISSED APPROACH: Climb to 4000 direct DUCEV and hold, continue climb-in-hold to 4000.

ATIS	GRAND FORKS APP CON	GRAND FORKS TOWER★	GND CON	UNICOM
119.4	118.1 318.1	118.4 (CTAF) L 120.55 350.35	124.575	122.95







MIRL Rwy 9L-27R L
MIRL Rwys 9R-27L and 17L-35R
HIRL Rwy 17R-35L L
REIL Rwys 17R and 27R L

CATEGORY	A	B	C	D
LPV DA	1093-1	250 (300-1)		
LNAV MDA	1460-1 617 (700-1)		1460-1¾ 617 (700-1¾)	1460-2 617 (700-2)
CIRCLING	1460-1 615 (700-1)		1460-1¾ 615 (700-1¾)	1460-2 615 (700-2)

NC-1. 08 APR 2010 to 06 MAY 2010

WAAS	APP CRS	Rwy Idg	7349
CH 70313	354°	TDZE	845
W35A		Apt Elev	845

RNAV (GPS) RWY 35L
GRAND FORKS INTL (GFK)

T DME/DME RNP -0.3 NA. Inoperative table does not apply to LNAV Cat D.
A If local altimeter setting not received, use Crookston altimeter setting and increase alll DAs/MDAs 80 feet.
VDP NA when using Crookston altimeter setting. Baro-VNAV NA below -16°C (4°F).
Baro-VNAV NA when using Crookston altimeter setting.
For inoperative MALSR increase LPV all Cats visibility to 1.

MALSR (A5)

MISSED APPROACH: Climb to 2600 direct FODIB and hold.

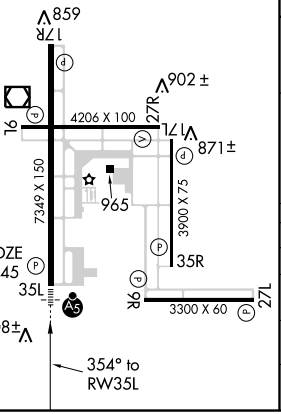
ATIS	GRAND FORKS APP CON	GRAND FORKS TOWER*	GND CON	UNICOM
119.4	118.1 318.1	118.4 (CTAF) L 120.55 350.35	124.575	122.95

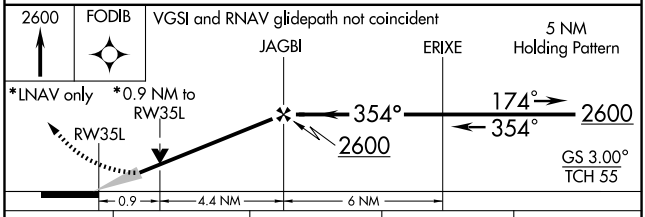
Procedure NA for arrivals at GFK VOR/DME via airway radials 112 CW 234.

MISSED APCH FIX
5 NM 174° 354° FODIB

GRAND FORKS GFK
930±
1326
1474
RW35L
910±
2600 to ERIXE
173° (12.2)
(FAF)
JAGBI
2600
354° (6)
(IAF)
IGIME
2600 NoPT
084° (5)
(IF/IAF)
ERIXE
354°
174°
5 NM
3000
052° (23.6)
UNIZY
2600 NoPT
328° (8.3)
(IAF)
JOCOR
2600
306° (17.1)
SHELS
MSA RW35L 25 NM
3300

ELEV 845
D
MIRL Rwy 9L-27R L
MIRL Rwys 9R-27L and 17L-35R
HIRL Rwys 17R-35L L
REIL Rwys 17R and 27R L





CATEGORY	A	B	C	D
LPV DA	1095-½ 250 (300-½)			
LNAV/VNAV DA	1174-½ 329 (400-½)			1174-¾ 329 (400-¾)
LNAV MDA	1180-½ 335 (400-½)			1180-1 335 (400-1)
CIRCLING	1280-1 435 (500-1)	1300-1 455 (500-1)	1300-1½ 455 (500-1½)	1400-2 555 (600-2)

NC-1. 08 APR 2010 to 06 MAY 2010

VOR/DME GFK	APP CRS	Rwy Idg	7349
114.3	183°	TDZE	843
Chan 90		Apt Elev	845

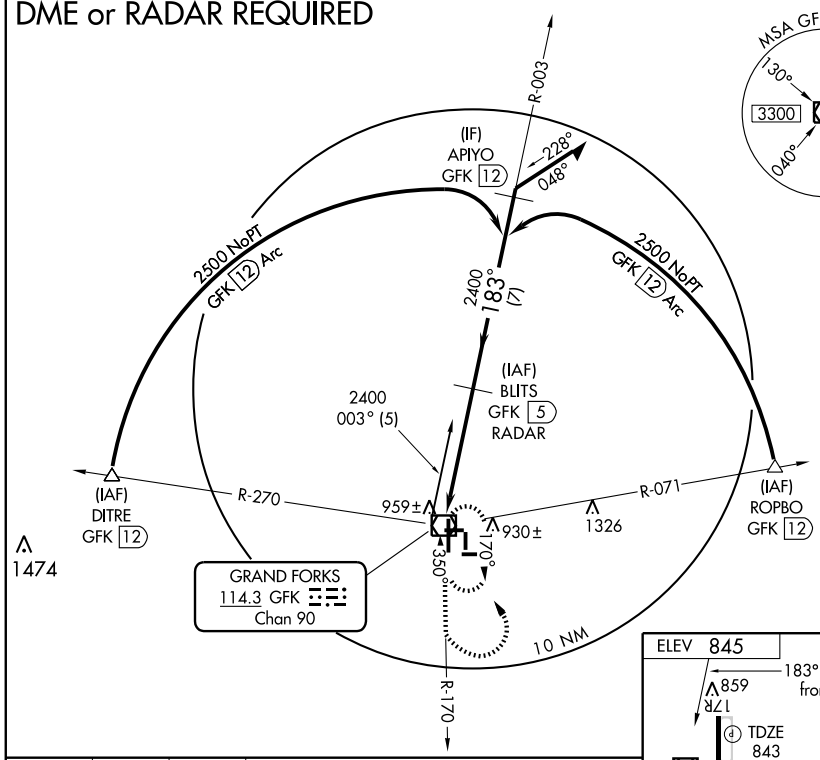
VOR RWY 17R
GRAND FORKS INTL (GFK)

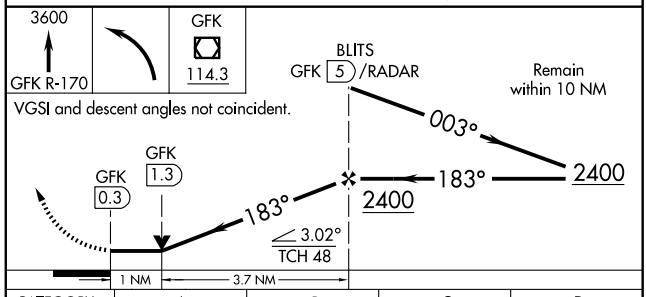
If local altimeter setting not received, use Crookston altimeter setting and increase all MDAs 80 feet.
VDP NA with Crookston altimeter setting.

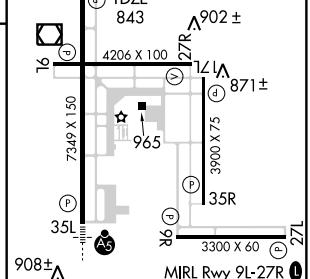
MISSED APPROACH: Climb to 3600 via GFK R-170 then left turn direct GFK VOR/DME and hold.

ATIS	GRAND FORKS APP CON	GRAND FORKS TOWER ★	GND CON	UNICOM
119.4	118.1 318.1	118.4 (CTAF) L 120.55 350.35	124.575	122.95

DME or RADAR REQUIRED







CATEGORY	A	B	C	D
S-17R	1220-1 377 (400-1)			1220-1¼ 377 (400-1¼)
CIRCLING	1280-1 435 (500-1)	1300-1 455 (500-1)	1300-1½ 455 (500-1½)	1400-2 555 (600-2)

FAF to MAP 4.7 NM

Knots	60	90	120	150	180
Min:Sec	4:42	3:08	2:21	1:53	1:34

NC-1. 08 APR 2010 to 06 MAY 2010

VOR/DME GFK	APP CRS	Rwy Idg	7349
114.3	344°	TDZE	845
Chan 90		Apt Elev	845

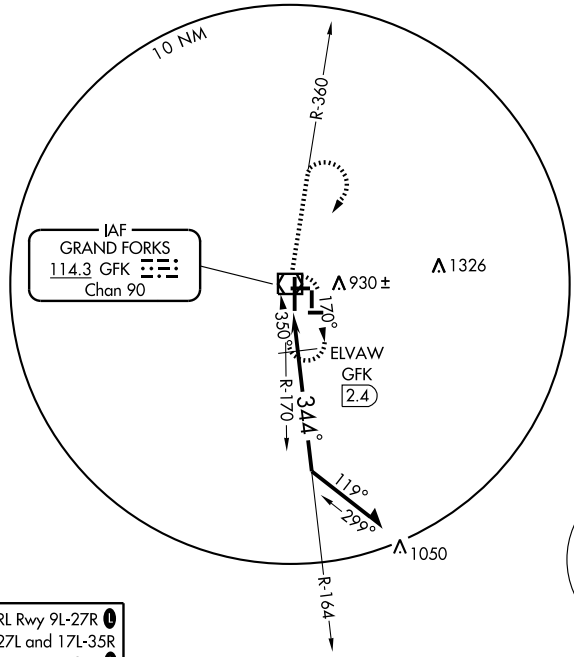
VOR RWY 35L
GRAND FORKS INTL (GFK)

If local altimeter setting not received use Crookston altimeter setting and increase, all MDAs 80 feet.
ELVAW FIX MINIMUMS: For inoperative MALSR, increase S-35L, Cat D visibility to 1¼ mile.

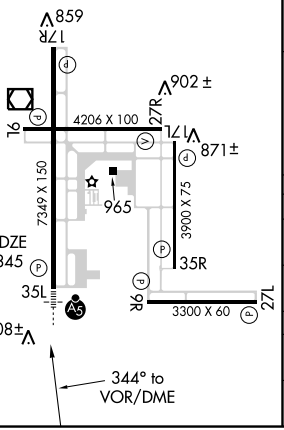
MALSR

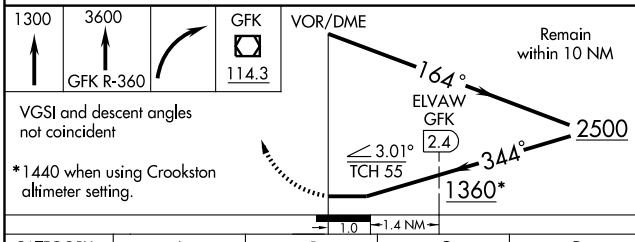
MISSED APPROACH: Climb to 1300 then climb to 3600 via GFK R-360 then right turn direct GFK VOR/DME and hold.

ATIS	GRAND FORKS APP CON	GRAND FORKS TOWER ★	GND CON	UNICOM
119.4	118.1 318.1	118.4 (CTAF) L 120.55 350.35	124.575	122.95



ELEV 845
D
MIRL Rwy 9L-27R L
MIRL Rwys 9R-27L and 17L-35R
HIRL Rwys 17R-35L L
REIL Rwys 17R and 27R L



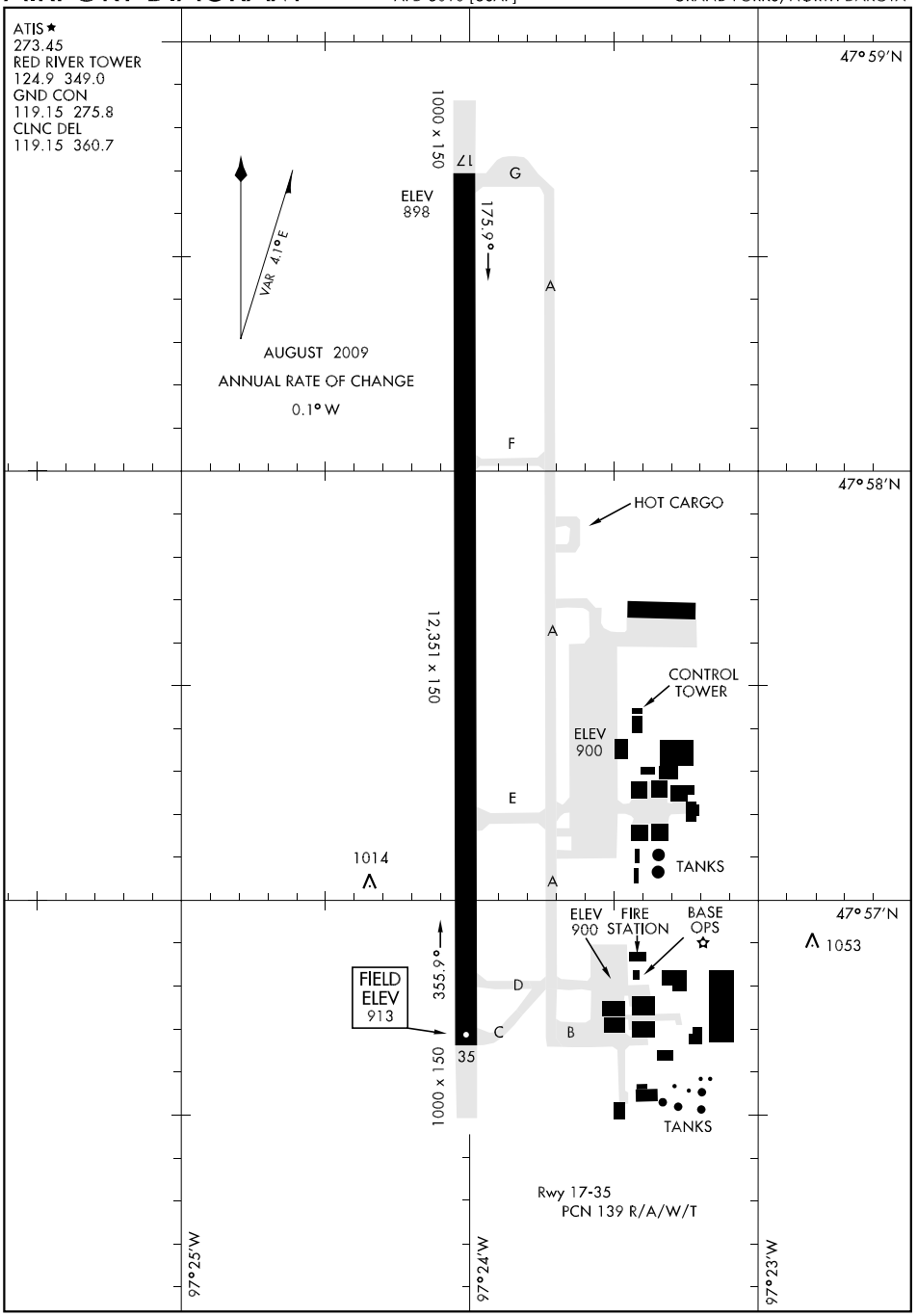


VGSI and descent angles not coincident

*1440 when using Crookston altimeter setting.

CATEGORY	A	B	C	D
S-35L	1360-½ 515 (600-½)		1360-1 515 (600-1)	1360-1¼ 515 (600-1¼)
CIRCLING	1360-1 515 (600-1)		1360-1½ 515 (600-1½)	1400-2 555 (600-2)
ELVAW FIX MINIMUMS				
S-35L	1220-½ 375 (400-½)			1220-1 375 (400-1)
CIRCLING	1280-1 435 (500-1)	1300-1 455 (500-1)	1300-1¼ 455 (500-1¼)	1400-2 555 (600-2)

NC-1. 08 APR 2010 to 06 MAY 2010


ATIS ★
273.45
RED RIVER TOWER
124.9 349.0
GND CON
119.15 275.8
CLNC DEL
119.15 360.7
47° 59′N
1000 x 150
17
G
ELEV
898
175.9°
A
VAR 4.1°E
AUGUST 2009
ANNUAL RATE OF CHANGE
0.1° W
F
47° 58′N
HOT CARGO
12,351 x 150
A
CONTROL
TOWER
ELEV
900
E
1014
A
TANKS
ELEV
900
FIRE
STATION
BASE
OPS
47° 57′N
1053
FIELD
ELEV
913
355.9°
D
C
B
35
1000 x 150
TANKS
Rwy 17-35
PCN 139 R/A/W/T
97° 25′W
97° 24′W
97° 23′W

HI-ILS or LOC RWY 17

LOC I-AVA	APCH CRS	Rwy ldg / TDZE / Arpt Elev	JAL-5010 [USAF]	GRAND FORKS AFB (KRDR)
111.3	174°	12,351 / 902 / 913		

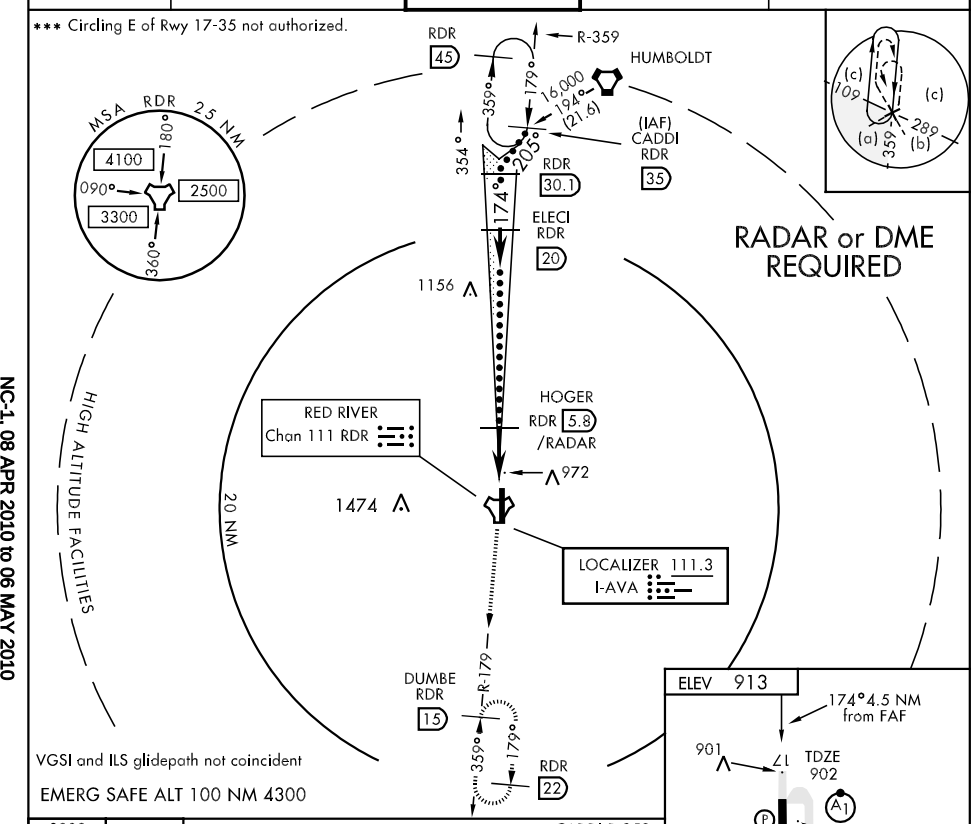
* When ALS inop, increase CAT CDE RVR to 40 and vis to ¾ mile.
** When ALS inop, increase CAT CD RVR to 50 and vis to 1 mile, CAT E RVR to 60 and vis to 1¼ mile.

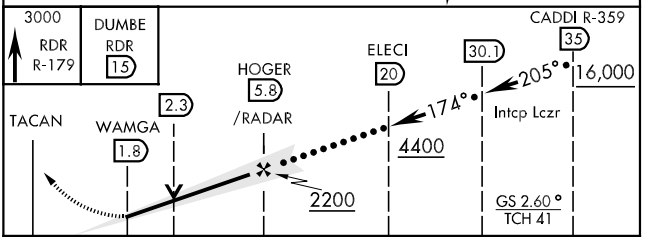
ALSF-1

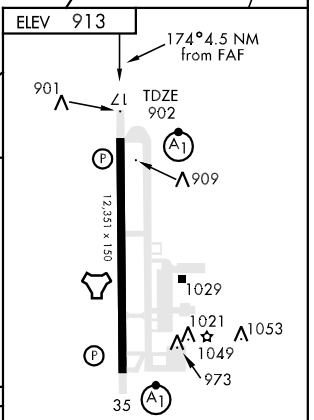
MISSED APPROACH: Climb to 3000 on RDR TACAN R-179 to DUMBE and hold.

ATIS ★	GRAND FORKS APP CON	RED RIVER TOWER	GND CON	CLNC DEL
273.45	118.1 318.1	124.9 349.0	119.15 275.8	119.15 360.7

*** Circling E of Rwy 17-35 not authorized.







CATEGORY	C	D	E
S-ILS 17 *	1102/24	200	(200-½)
S-LOC 17 **	1240/40	338	(400-¾)
CIRCLING***	1380-1½ 467 (500-1½)	1480-2 567 (600-2)	2040-3 1127 (1200-3)

FAF to MAP 4.0 NM

Knots	120	140	160	180	200
Min:Sec	2:00	1:43	1:30	1:20	1:12

NC-1, 08 APR 2010 to 06 MAY 2010

HI-ILS or LOC RWY 35

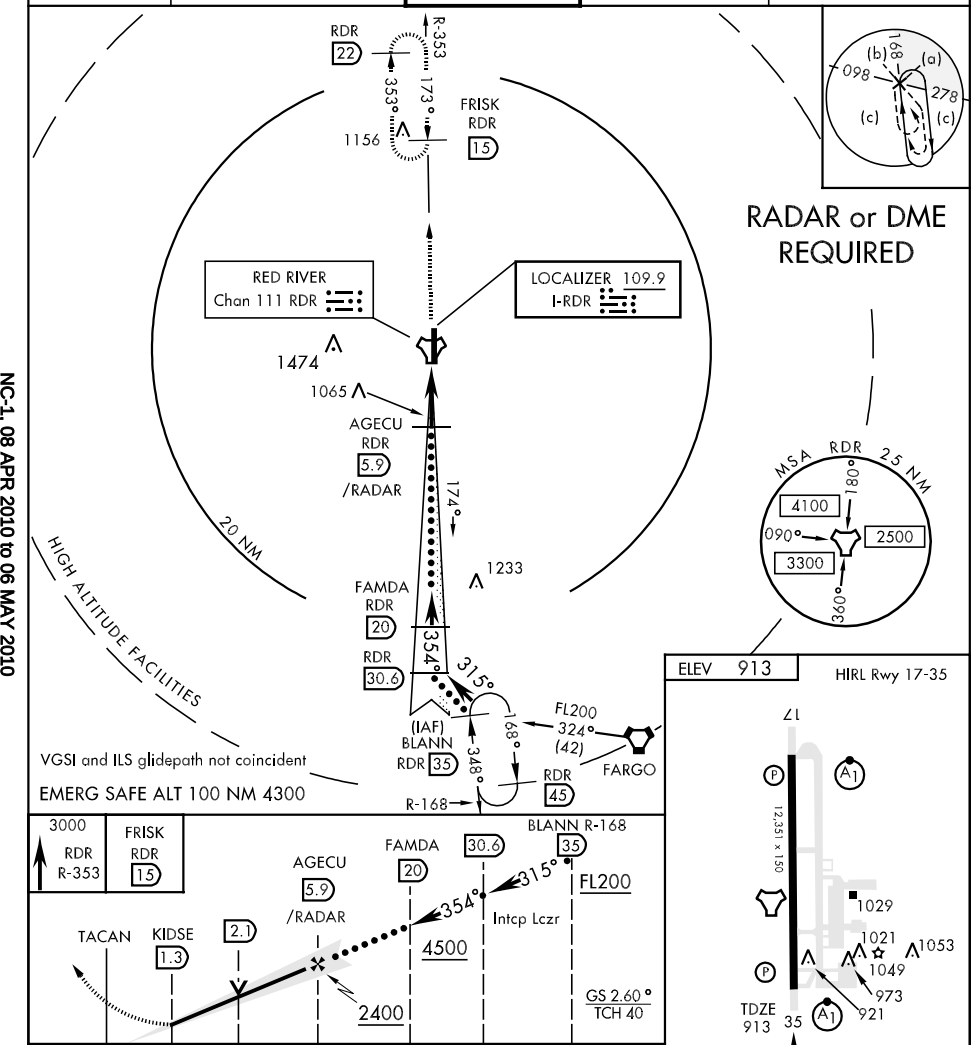
LOC I-RDR	APCH CRS	Rwy ldg / TDZE / Arpt Elev	JAL-5010 [USAF]	GRAND FORKS AFB (KRDR)
109.9	354°	12,351 / 913 / 913		

* When ALS inop, increase CAT CDE RVR to 40 and vis to ¾ mile.
** When ALS inop, incr CAT CD RVR to 60 and vis to 1¼ mile, CAT E vis to 1½.
*** Circling E of Rwy 17-35 not authorized.

ALSF-1

MISSED APPROACH: Climb to 3000 on RDR TACAN R-353 to FRISK and hold.

ATIS ★	GRAND FORKS APP CON	RED RIVER TOWER	GND CON	CLNC DEL
273.45	118.1 318.1	124.9 349.0	119.15 275.8	119.15 360.7



CATEGORY	C	D	E
S-ILS 35 *	1113/24 200 (200-½)		
S-LOC 35**	1320/40 407 (500-¾)		1320/50 407 (500-1)
CIRCLING***	1380-1½ 467 (500-1½)	1480-2 567 (600-2)	2040-3 1127 (1200-3)

FAF to MAP 4.6 NM

Knots	120	140	160	180	200
Min:Sec	2:18	1:58	1:43	1:32	1:23

NC-1, 08 APR 2010 to 06 MAY 2010

HI-TACAN RWY 17

TACAN RDR Chan 111	APCH CRS 179°	Rwy ldg 12,351 TDZE 902 Arpt Elev 913

JAL-5010 [USAF]

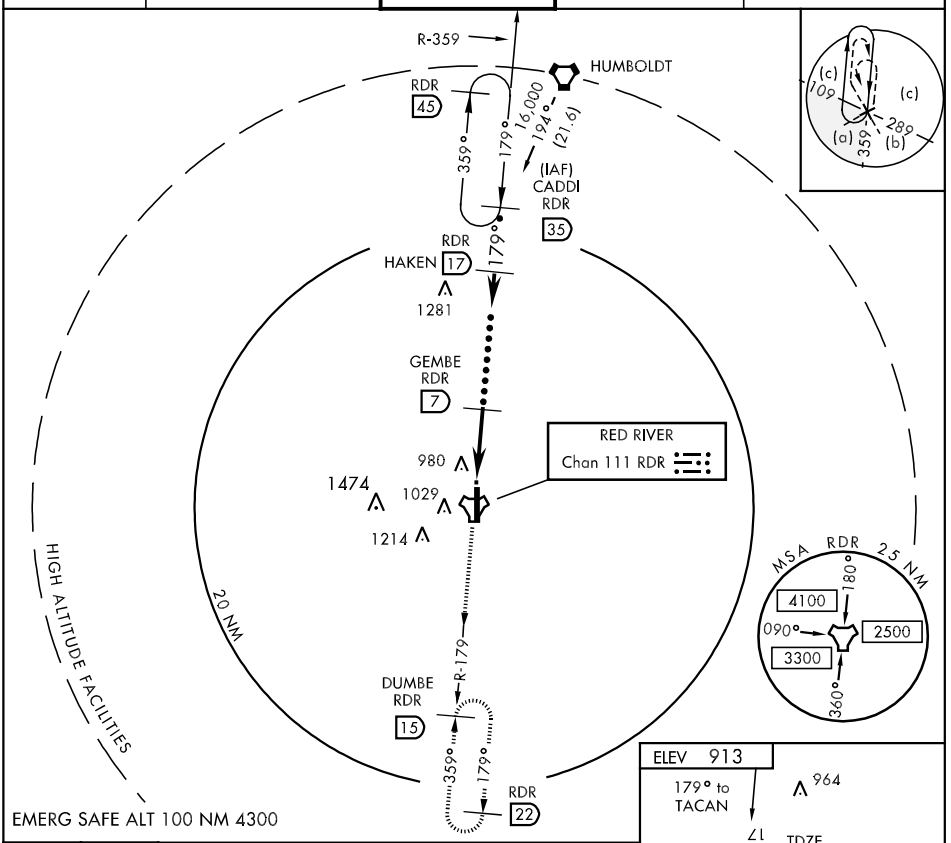
GRAND FORKS AFB (KRDR)

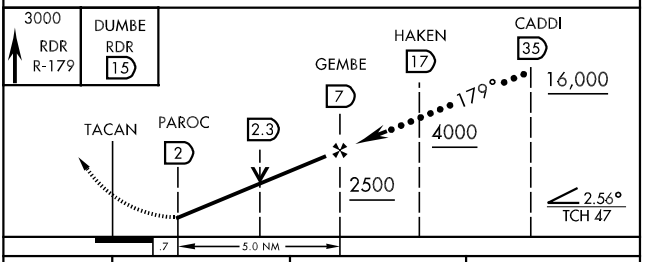
* When ALS inop, increase CAT CD RVR to 50 and vis to 1 mile, CAT E RVR to 60 and vis to 1¼ mile.
** Circling E of Rwy 17-35 not authorized.

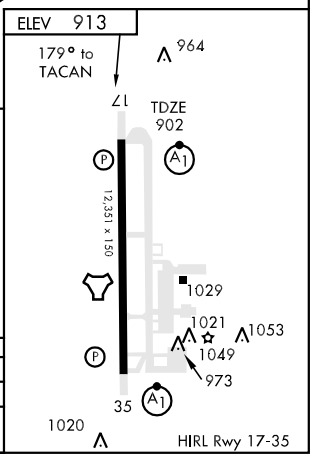
ALSF-1

MISSED APPROACH: Climb to 3000 on RDR TACAN R-179 to DUMBE and hold.

ATIS ★	GRAND FORKS APP CON	RED RIVER TOWER	GND CON	CLNC DEL
273.45	118.1 318.1	124.9 349.0	119.15 275.8	119.15 360.7







CATEGORY	C	D	E
S-17 ★	1240/40	338 (400-¾)	
CIRCLING ★★	1380-1½ 467 (500-1½)	1480-2 567 (600-2)	2040-3 1127 (1200-3)

NC-1, 08 APR 2010 to 06 MAY 2010

HI-TACAN RWY 35

TACAN RDR Chan 111	APCH CRS 348°	Rwy ldg 12,351 TDZE 913 Arpt Elev 913

JAL-5010 [USAF]

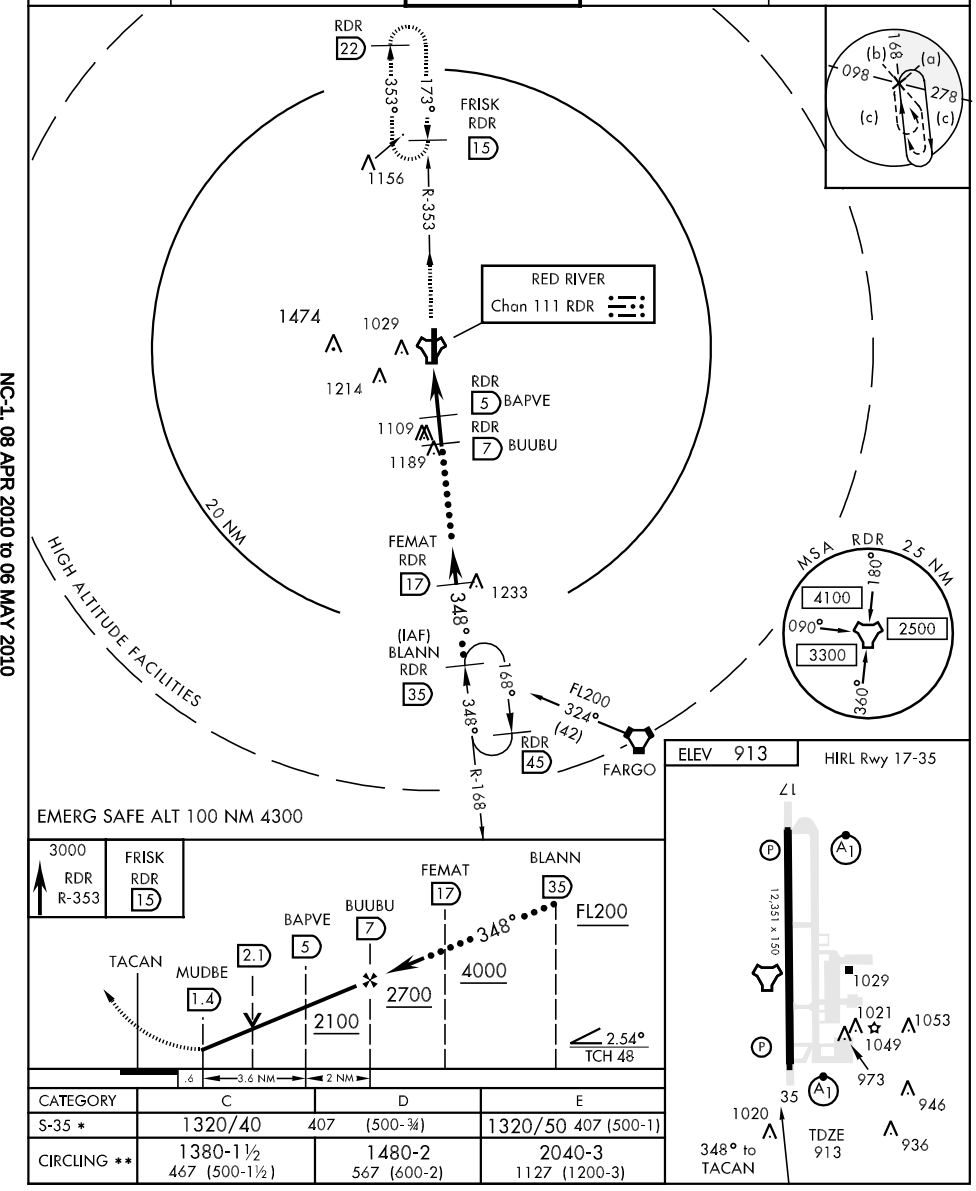
GRAND FORKS AFB (KRDR)

* When ALS inop, increase CAT CD RVR to 60 and vis to 1¼ miles, CAT E vis to 1½ miles.
** Circling E of Rwy 17-35 not authorized.

ALSF-1

MISSED APPROACH: Climb to 3000 on RDR TACAN R-353 to FRISK and hold.

ATIS ★	GRAND FORKS APP CON	RED RIVER TOWER	GND CON	CLNC DEL
273.45	118.1 318.1	124.9 349.0	119.15 275.8	119.15 360.7



CATEGORY	C	D	E
S-35 ★	1320/40 407 (500-¾)		1320/50 407 (500-1)
CIRCLING ★★	1380-1½ 467 (500-1½)	1480-2 567 (600-2)	2040-3 1127 (1200-3)

ILS or LOC RWY 17

LOC I-AVA	APCH CRS	Rwy ldg 12,351 TDZE 902 Arpt Elev 913
111.3	174°	

AL-5010 [USAF]

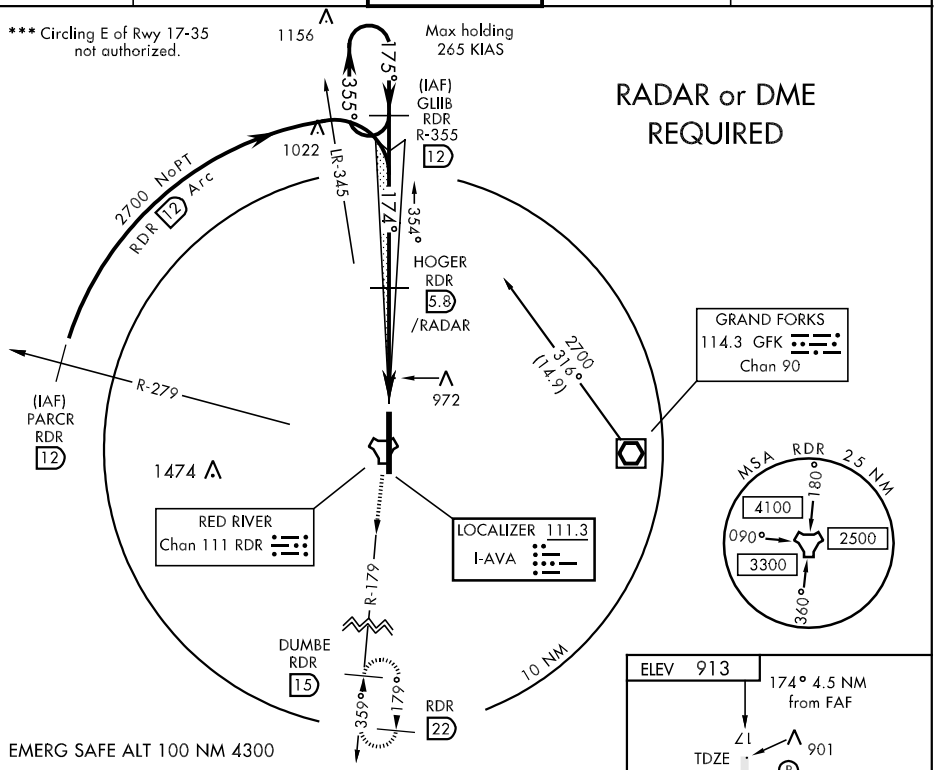
GRAND FORKS AFB (KRDR)

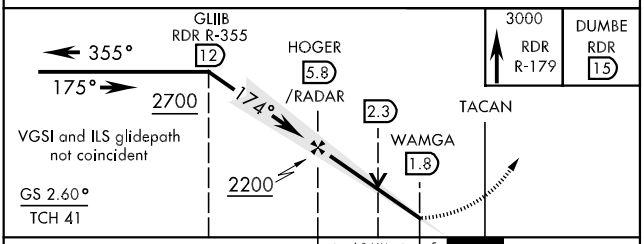
* When ALS inop, increase RVR to 40 and vis to ¾ mile.
** When ALS inop, increase CAT ABCD RVR to 50 and vis to 1 mile, CAT E RVR to 60 and vis to 1¼ miles.

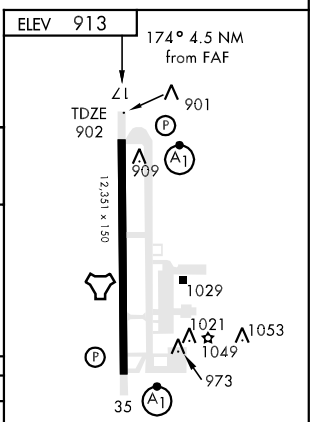
ALSF-1

MISSED APPROACH: Climb to 3000 on RDR TACAN R-179 to DUMBE and hold.

ATIS ★	GRAND FORKS APP CON	RED RIVER TOWER	GND CON	CLNC DEL
273.45	118.1 318.1	124.9 349.0	119.15 275.8	119.15 360.7







CATEGORY	A	B	C	D	E
S-ILS 17 *	1102/24		200	(200-½)	
S-LOC 17 **	1240/24 338 (400-½)		1240/40 338 (400-¾)		
CIRCLING ***	1340-1 427 (500-1)	1380-1 467 (500-1)	1380-1½ 467 (500-1½)	1480-2 567 (600-2)	2040-3 1127 (1200-3)

FAF to MAP 4.0 NM					
Knots	60	90	120	150	180
Min:Sec	4:00	2:40	2:00	1:36	1:20

NC-1, 08 APR 2010 to 06 MAY 2010

ILS or LOC RWY 35

LOC I-RDR	APCH CRS	Rwy ldg 12,351 TDZE 913 Arpt Elev 913
109.9	354°	

AL-5010 [USAF]

GRAND FORKS AFB (KRDR)

* When ALS inop, increase RVR to 40 and vis to ¾ mile.
** When ALS inop, increase CAT AB RVR to 50 and vis to 1 mile, CAT CD RVR to 60 and vis to 1¼ miles, CAT E vis to 1½ miles.

ALSF-1

MISSED APPROACH: Climb to 3000 on RDR TACAN R-353 to FRISK and hold.

ATIS ★	GRAND FORKS APP CON	RED RIVER TOWER	GND CON	CLNC DEL
273.45	118.1 318.1	124.9 349.0	119.15 275.8	119.15 360.7

*** Circling E of Rwy 17-35 not authorized.

RADAR or DME REQUIRED

RDR 22 — 173° / 353°

FRISK RDR 15

(IAF) PARCR RDR 12

R-353

R-279

LOCALIZER 109.9 I-RDR

GRAND FORKS 114.3 GFK Chan 90

1474

RED RIVER Chan 111 RDR

2700 NoPT RDR 12 Arc

2700 207° (14.7)

10 NM

1065

AGECU RDR 5.9 /RADAR

MSA RDR 2.5 NM
180°
4100
090°
2500
3300
360°

LR-183

354° / 174°

(IAF) HONNE RDR R-173 12

1320

173° / 353°

Max holding 265 KIAS

EMERG SAFE ALT 100 NM 4300

3000 RDR R-353

FRISK RDR 15

HONNE RDR R-173 12

AGECU 5.9 /RADAR

173° / 353°

354°

2700

TACAN

KIDSE 2.1

1.3

2400

VGSI and ILS Glidepath not coincident

GS 2.60°
TCH 40

.5 — 4.6 NM

ELEV 913

HIRL Rwy 17-35

17

12,351 x 150

1029

1021

1053

1049

973

921

TDZE 913

35

354°5.1 NM from FAF

CATEGORY	A	B	C	D	E
S-ILS 35 *	1113/24		200	(200-½)	
S-LOC 35 **	1320/24	407 (500-½)	1320/40	407 (500-¾)	1320/50 407 (500-1)
CIRCLING ***	1340-1 427 (500-1)	1380-1 467 (500-1)	1380-1½ 467 (500-1½)	1480-2 567 (600-2)	2040-3 1127 (1200-3)

FAF to MAP 4.6 NM

Knots	60	90	120	150	180
Min:Sec	4:36	3:04	2:18	1:50	1:32

NC-1, 08 APR 2010 to 06 MAY 2010

TACAN RWY 17

GRAND FORKS AFB (KRDR)

TACAN RDR Chan 111	APCH CRS 179°	Rwy ldg 12,351 TDZE 902 Arpt Elev 913

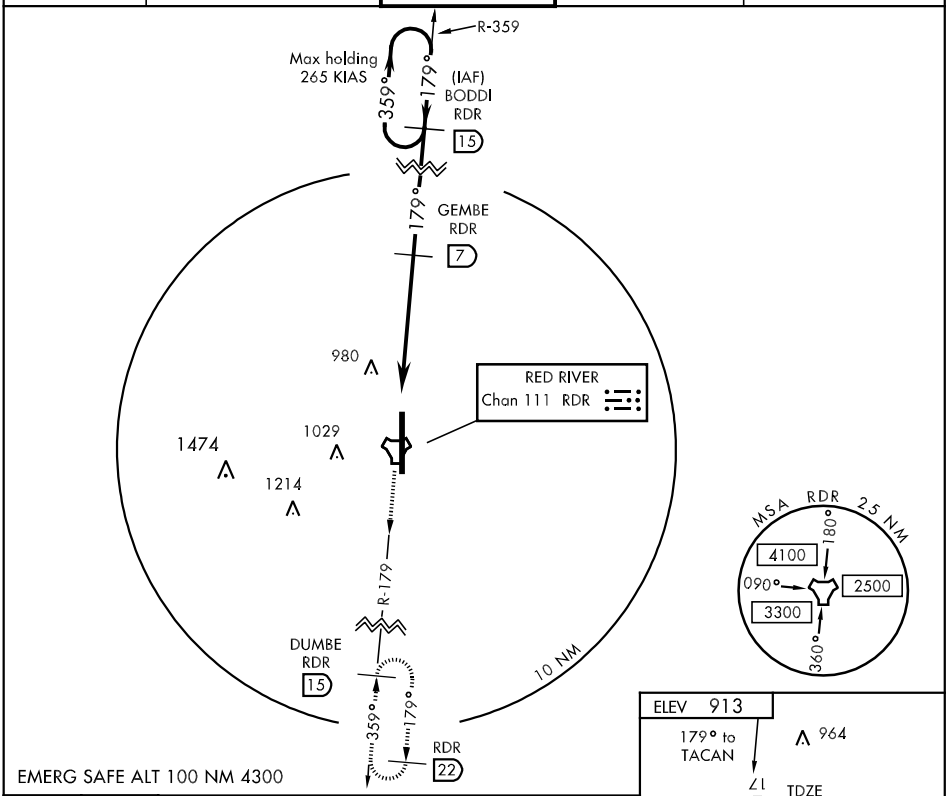
AL-5010 [USAF]

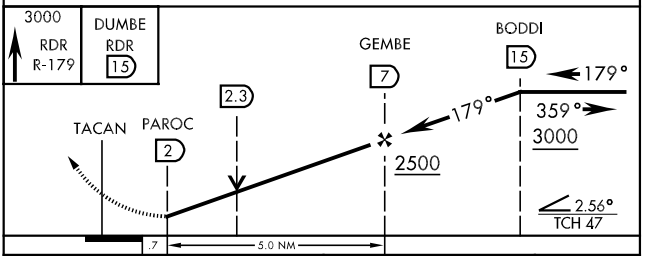
* When ALS inop, increase CAT ABCD RVR to 50 and vis to 1 mile, CAT E RVR to 60 and vis to 1¼ miles.
** Circling E of Rwy 17-35 not authorized.

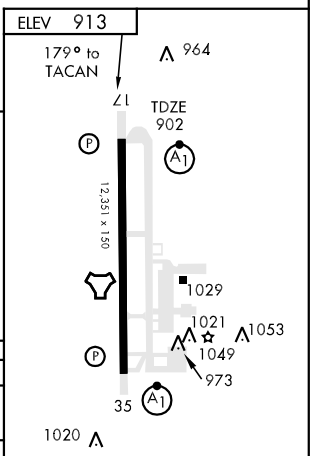
ALSF-1

MISSED APPROACH: Climb to 3000 on RDR TACAN R-179 to DUMBE and hold.

ATIS ★	GRAND FORKS APP CON	RED RIVER TOWER	GND CON	CLNC DEL
273.45	118.1 318.1	124.9 349.0	119.15 275.8	119.15 360.7







CATEGORY	A	B	C	D	E
S-17 *	1240/24 338 (400-½)		1240/40 338 (400-¾)		
CIRCLING **	1340-1 427 (500-1)	1380-1 467 (500-1)	1380-1½ 467 (500-1½)	1480-2 567 (600-2)	2040-3 1127 (1200-3)

NC-1, 08 APR 2010 to 06 MAY 2010

TACAN RWY 35

TACAN RDR Chan 111	APCH CRS 348°	Rwy ldg 12,351 TDZE 913 Arpt Elev 913

AL-5010 [USAF]

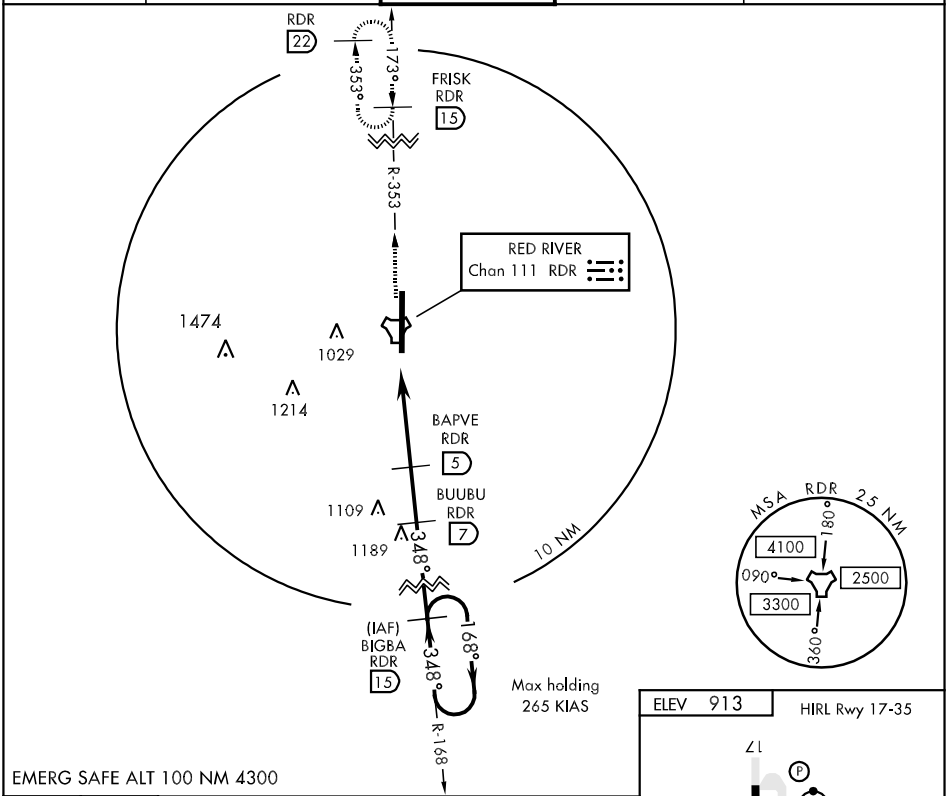
GRAND FORKS AFB (KRDR)

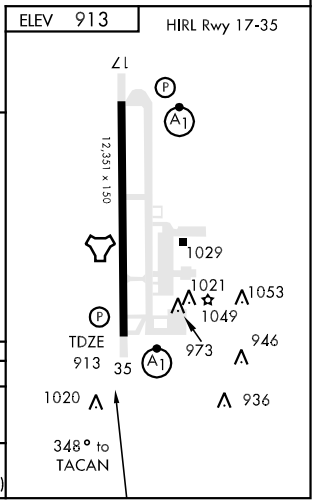
* When ALS inop, increase CAT AB RVR to 50 and vis to 1 mile, CAT CD RVR to 60 and vis to 1¼ miles, CAT E vis to 1½ miles.
** Circling E of Rwy 17-35 not authorized.

ALSF-1

MISSED APPROACH: Climb to 3000 on RDR TACAN R-353 to FRISK and hold.

ATIS ★	GRAND FORKS APP CON	RED RIVER TOWER	GND CON	CLNC DEL
273.45	118.1 318.1	124.9 349.0	119.15 275.8	119.15 360.7





CATEGORY	A	B	C	D	E
S-35 *	1320/24 407 (500-½)		1320/40 407 (500-¾)		1320/50 407 (500-1)
CIRCLING **	1340-1 427 (500-1)	1380-1 467 (500-1)	1380-1½ 467 (500-1½)	1480-2 567 (600-2)	2040-3 1127 (1200-3)

NC-1, 08 APR 2010 to 06 MAY 2010

NDB GWR	APP CRS	Rwy Idg	4986
278	344°	TDZE	1256
		Apt Elev	1266

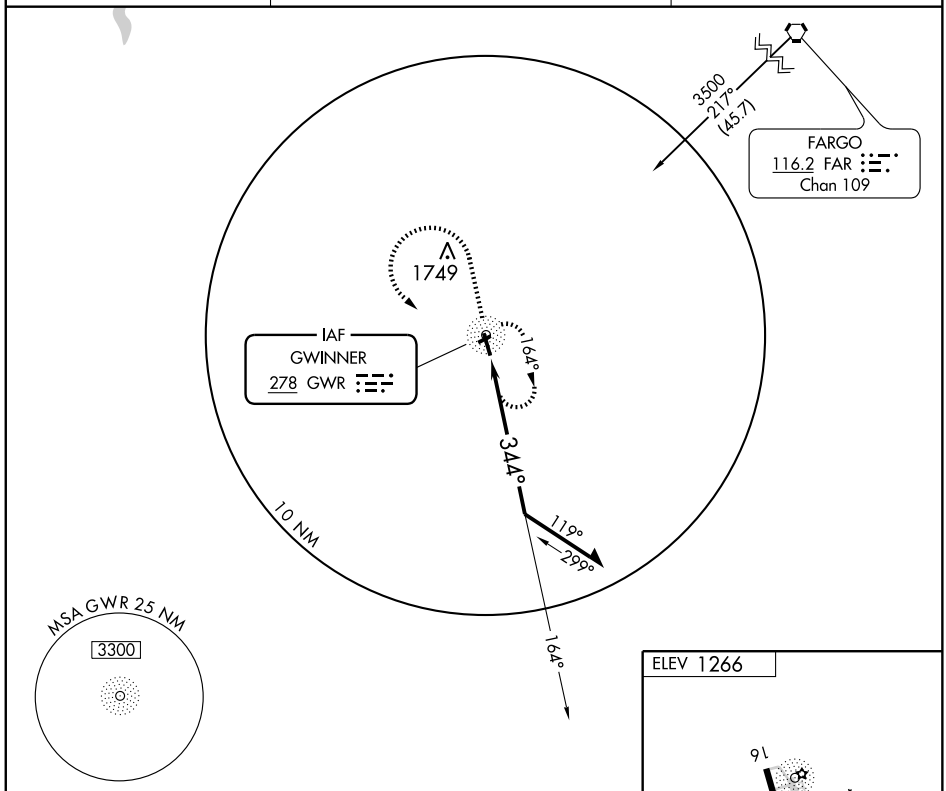
NDB RWY 34

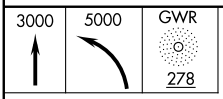
GWINNER-ROGER MELROE FIELD (GWR)

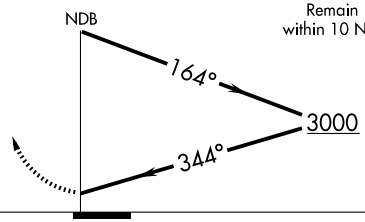
T A NA When local altimeter setting not received, use Fargo altimeter setting and increase all MDA 180 feet. Increase all Cat B visibilities ¼ mile, and all Cat C/D visibilities ¾ mile.

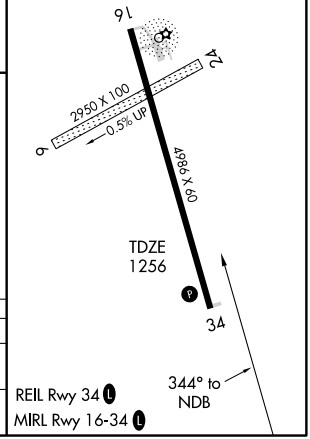
MISSED APPROACH: Climb to 3000 then climbing left turn to 5000 direct GWR NDB and hold, continue climb-in-hold to 5000.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
118.325	127.35 278.3	122.7 (CTAF) L









CATEGORY	A	B	C	D
S-34	1840-1	584 (600-1)	1840-1½ 584 (600-1½)	1840-1¾ 584 (600-1¾)
CIRCLING	1840-1	574 (600-1)	1840-1½ 574 (600-1½)	1840-2 574 (600-2)

NC-1. 08 APR 2010 to 06 MAY 2010

APP CRS	Rwy Idg	4986
160°	TDZE	1256
	Apt Elev	1266

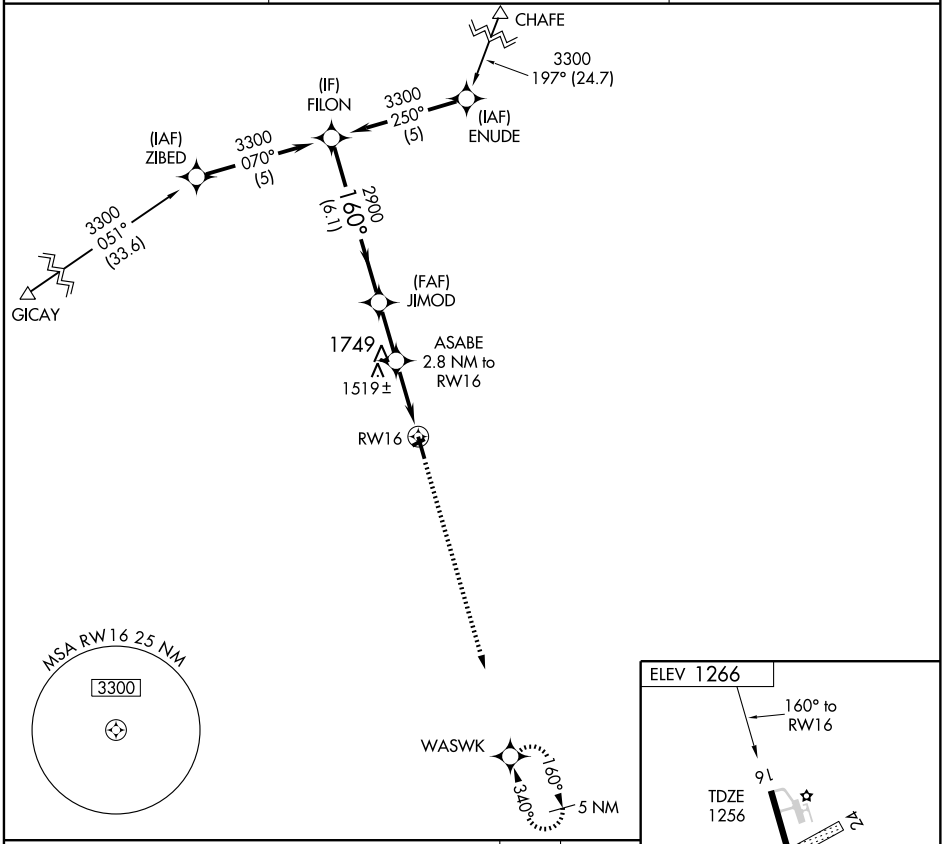
RNAV (GPS) RWY 16

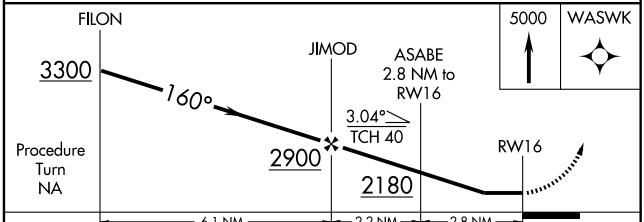
GWINNER-ROGER MELROE FIELD (GWR)

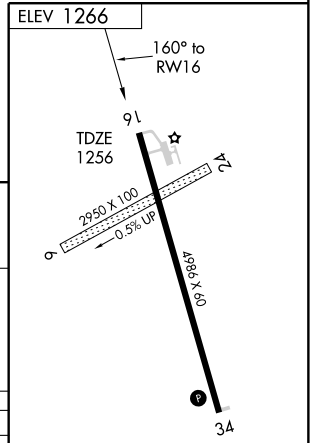
T ANA — DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Fargo altimeter setting and increase all MDA 180 feet. Increase LNAV Cat C/D visibility ½ mile, Circling Cat C ½ mile and Cat D ¼ mile.

MISSED APPROACH: Climb to 5000 direct WASWK and hold, continue climb-in-hold to 5000.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
118.325	127.35 278.3	122.7 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1780-1	524 (600-1)	1780-1½ 524 (600-1½)	1780-1¾ 524 (600-1¾)
CIRCLING	1780-1	514 (600-1)	1780-1½ 514 (600-1½)	1820-2 554 (600-2)

REIL Rwy 34 L
MIRL Rwy 16-34 L

NC-1. 08 APR 2010 to 06 MAY 2010

APP CRS	Rwy Idg	4986
340°	TDZE	1256
	Apt Elev	1266

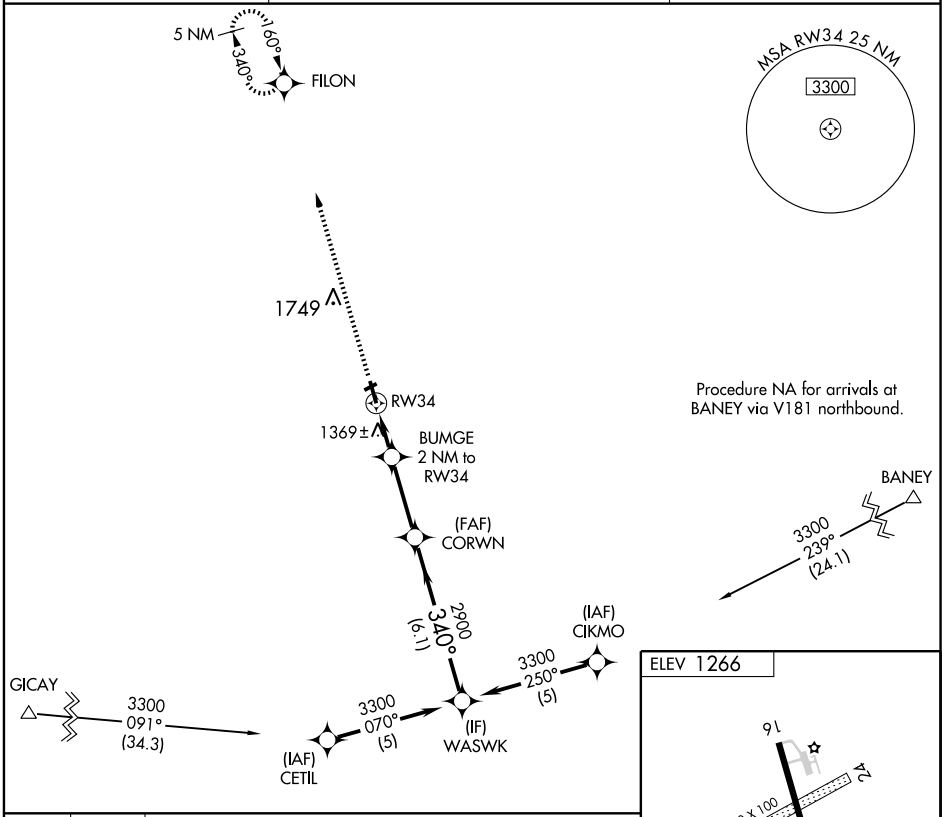
RNAV (GPS) RWY 34

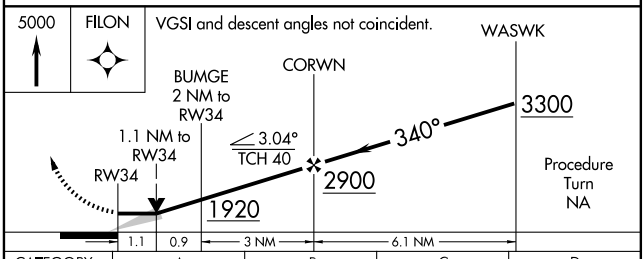
GWINNER-ROGER MELROE FIELD (GWR)

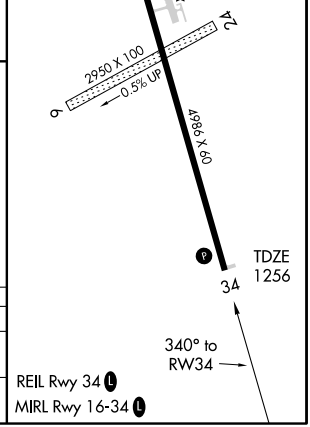
T NA — DME/DME RNP-0.3 NA. When local altimeter setting not received, use Fargo altimeter setting and increase all MDA 180 feet. Increase LNAV Cat C/D visibility ½ mile, Circling Cat C/D ¼ mile. VDP NA when using Fargo altimeter setting.

MISSED APPROACH: Climb to 5000 direct FILON and hold, continue climb-in-hold to 5000.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
118.325	127.35 278.3	122.7 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1620-1 364 (400-1)			1620-1¼ 364 (400-1¼)
CIRCLING	1700-1 434 (500-1)	1720-1 454 (500-1)	1720-1½ 454 (500-1½)	1820-2 554 (600-2)

NC-1, 08 APR 2010 to 06 MAY 2010

APP CRS	Rwy Idg	3600
112°	TDZE	1605
	Apt Elev	1605

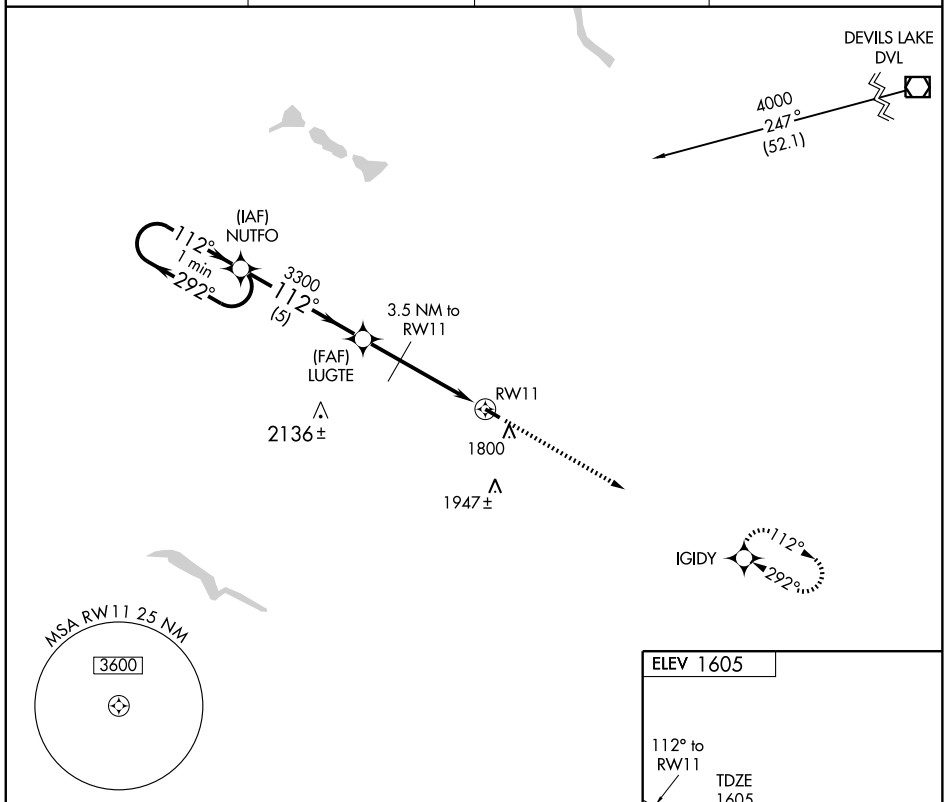
GPS RWY 11
HARVEY MUNI (5H4)

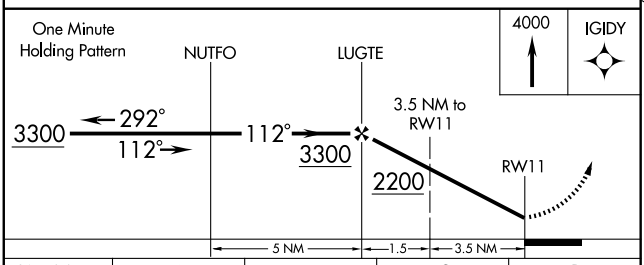
NA

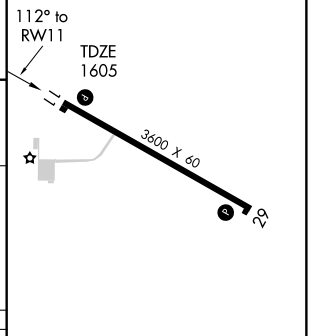
Use Devils Lake altimeter setting.
Procedure not authorized at night.

MISSED APPROACH: Climb to 4000 direct IGIDY WP and hold.

AWOS-3	DEVILS LAKE AWOS-3	MINNEAPOLIS CENTER	UNICOM
118.825	125.875	126.8 256.7	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-11	2080-1	475 (500-1)	2080-1¼ 475 (500-1¼)	NA
CIRCLING	2240-1	635 (700-1)	2240-1¾ 635 (700-1¾)	NA

MIRL Rwy 11-29 L

NC-1. 08 APR 2010 to 06 MAY 2010

APP CRS	Rwy Idg	3600
292°	TDZE	1605
	Apt Elev	1605

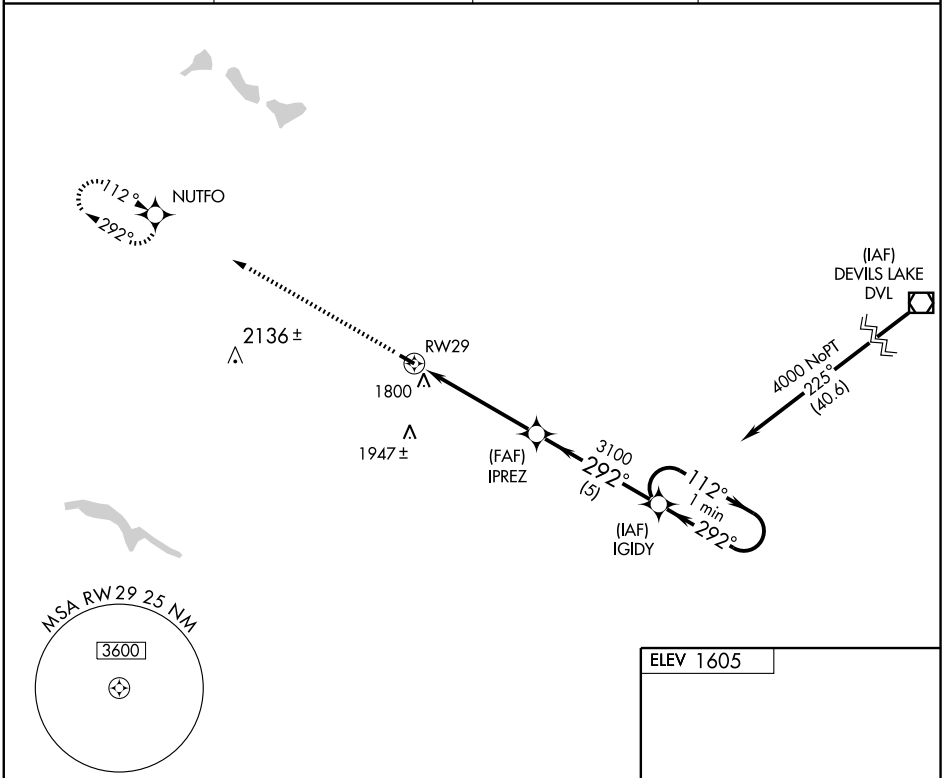
GPS RWY 29
HARVEY MUNI (5H4)

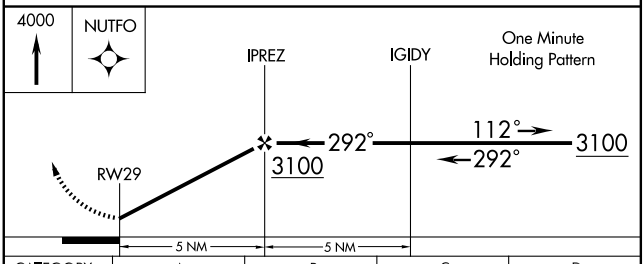
NA

Use Devils Lake altimeter setting.
Procedure not authorized at night.

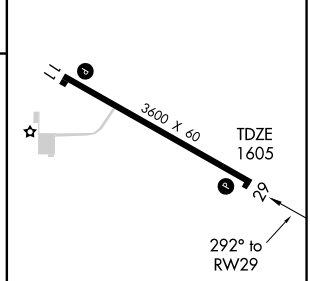
MISSED APPROACH: Climb to 4000 direct NUTFO WP and hold.

AWOS-3	DEVILS LAKE AWOS-3	MINNEAPOLIS CENTER	UNICOM
118.825	125.875	126.8 256.7	122.8 (CTAF) L





CATEGORY	A	B	C	D
S-29	2140-1	535 (600-1)	2140-1½ 535 (600-1½)	NA
CIRCLING	2240-1	635 (700-1)	2240-1¾ 635 (700-1¾)	NA



MIRL Rwy 11-29 L

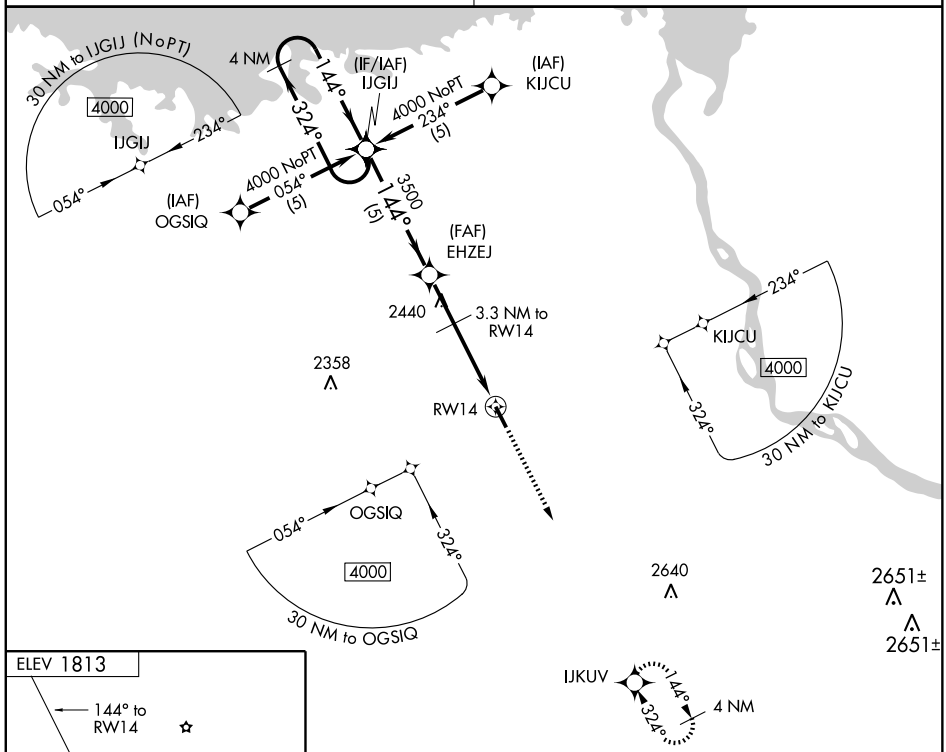
NC-1. 08 APR 2010 to 06 MAY 2010

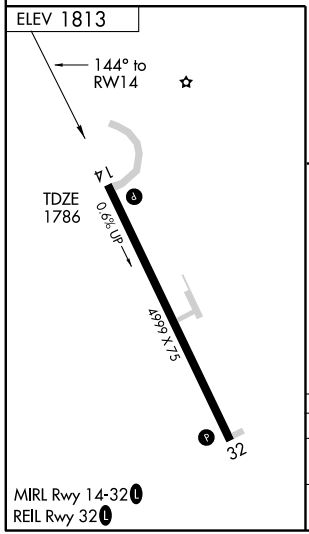
APP CRS	Rwy Idg	4999
144°	TDZE	1786
	Apt Elev	1813

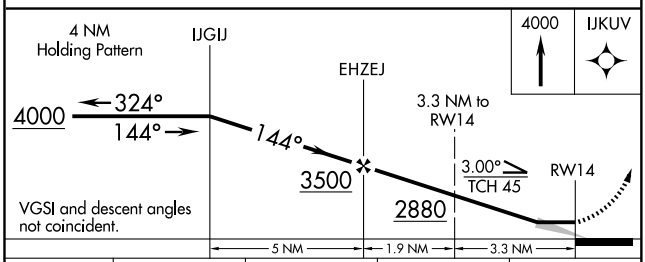
RNAV (GPS) RWY 14

HAZEN/MERCER COUNTY RGNL (HZE)

⚠ NA Use Bismarck, ND altimeter setting. GPS or RNP 0.3-required. DME/DME RNP-0.3 NA.	MISSED APPROACH: Climb to 4000 direct IJKUV WP and hold.
MINNEAPOLIS CENTER **124.25 380.3**	CTAF **122.8** (L)







CATEGORY	A	B	C	D
LNAV MDA	2400-1 614 (600-1)		2400-1¾ 614 (600-1¾)	NA
CIRCLING	2440-1 627 (700-1)	2460-1 647 (700-1)	2460-1¾ 647 (700-1¾)	NA

NC-1. 08 APR 2010 to 06 MAY 2010

HAZEN, NORTH DAKOTA

AL-9085 (FAA)

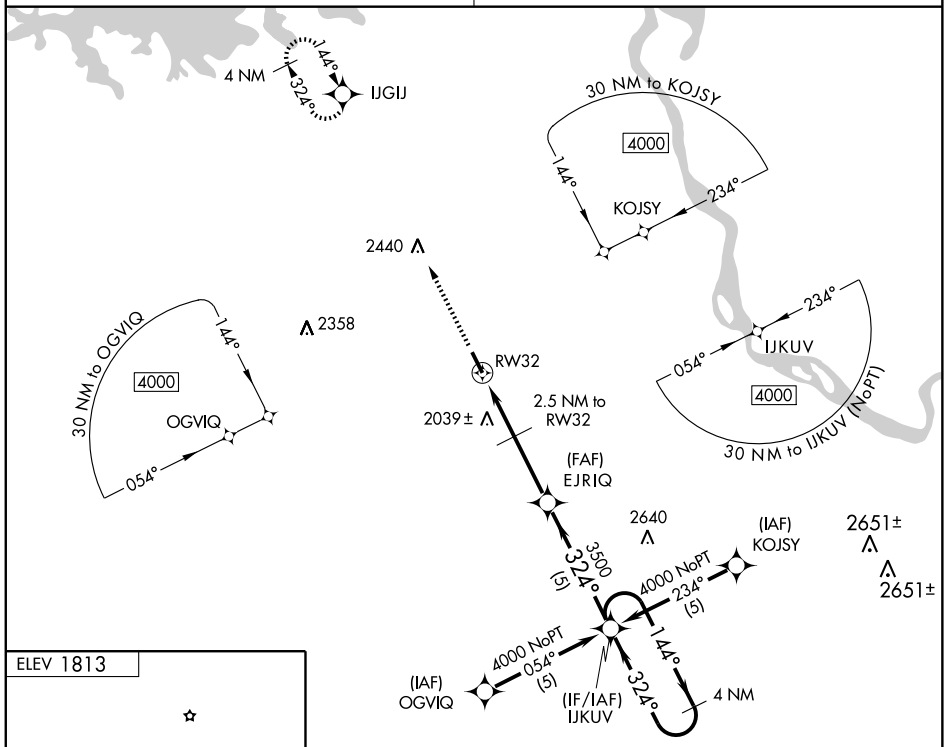
APP CRS	Rwy Idg	4999
324°	TDZE	1813
	Apt Elev	1813

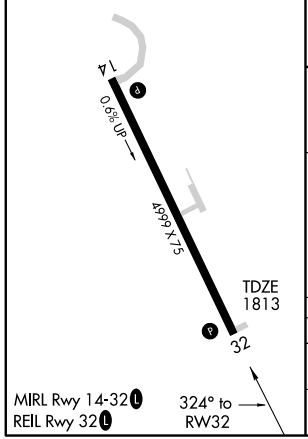
RNAV (GPS) RWY 32

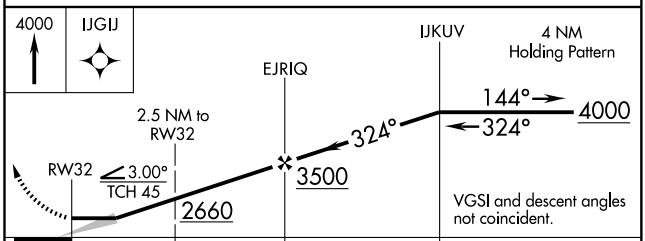
HAZEN/MERCER COUNTY RGNL (HZE)

NA	Use Bismarck, ND altimeter setting. GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.	MISSED APPROACH: Climb to 4000 direct IJGIJ WP and hold.

MINNEAPOLIS CENTER	CTAF
124.25 380.3	122.8 L







CATEGORY	A	B	C	D
LNAV MDA	2420-1	607 (700-1)	2420-1¾ 607 (700-1¾)	NA
CIRCLING	2440-1 627 (700-1)	2460-1 647 (700-1)	2460-1¾ 647 (700-1¾)	NA

NC-1. 08 APR 2010 to 06 MAY 2010

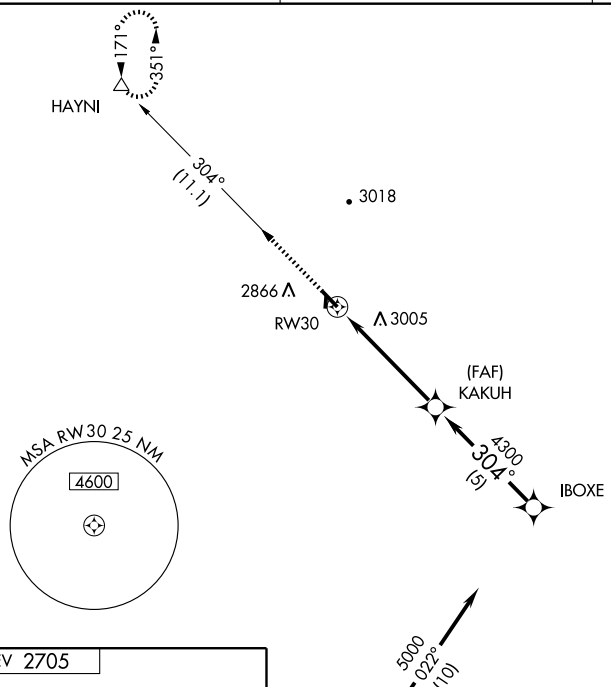
APP CRS		
304°	Rwy Idg	4652
	TDZE	2705
	Apt Elev	2705

GPS RWY 30
HETTINGER MUNI (HEI)

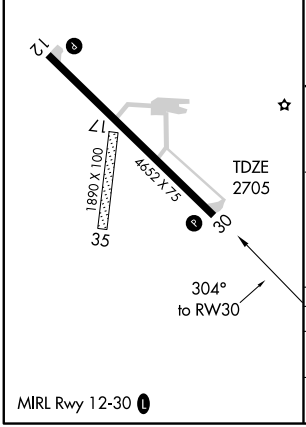
NA

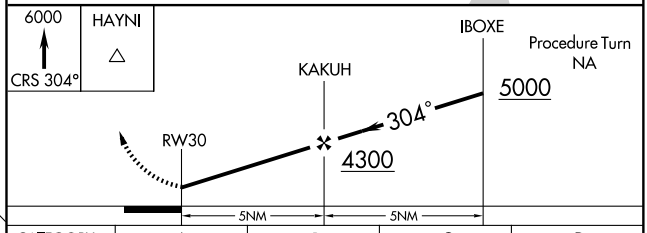
MISSED APPROACH: Climb to 6000 via 304° course to HAYNI WP and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
119.925	124.25 380.3	122.8 (CTAF) L









CATEGORY	A	B	C	D
S-30	3320-1	615 (700-1)	3320-1¾ 615 (700-1¾)	3320-2 615 (700-2)
CIRCLING	3320-1	615 (700-1)	3320-1¾ 615 (700-1¾)	3400-2¼ 695 (700-2¼)

NC-1. 08 APR 2010 to 06 MAY 2010

APP CRS	Rwy Idg	3300
166°	TDZE	905
	Apt Elev	905

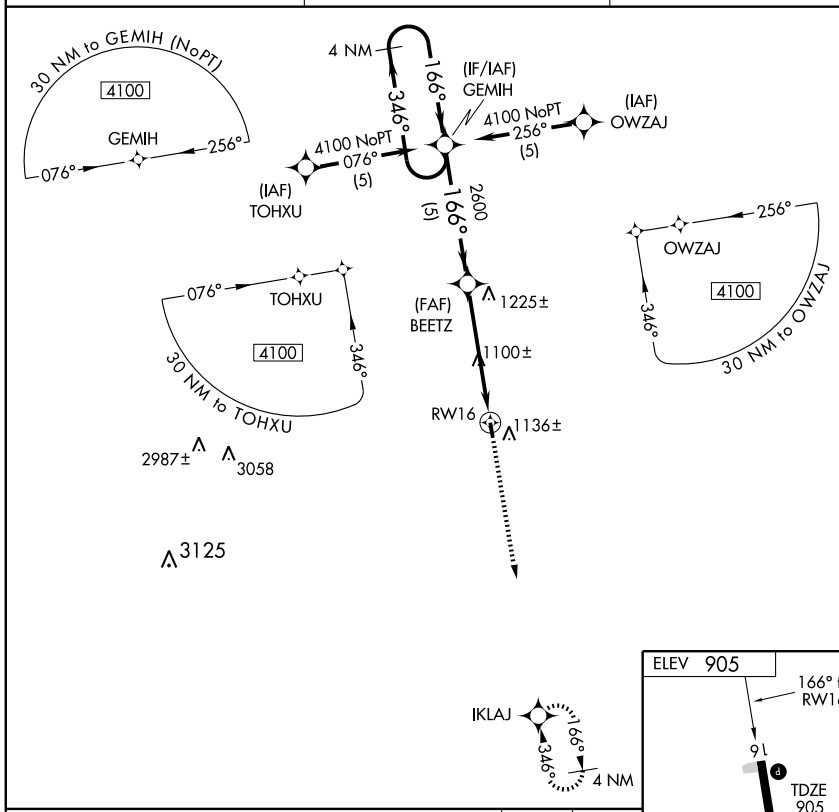
RNAV (GPS) RWY 16
HILLSBORO MUNI (3H4)

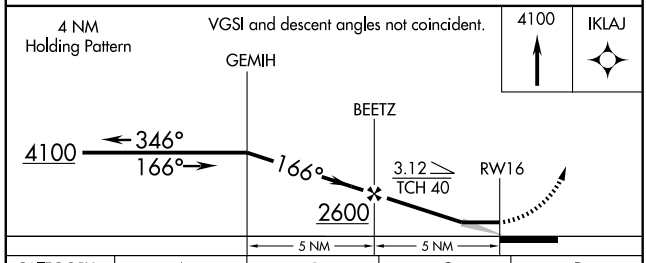
T A NA

DME/DME RNP- 0.3 NA.
Use Fargo altimeter setting.

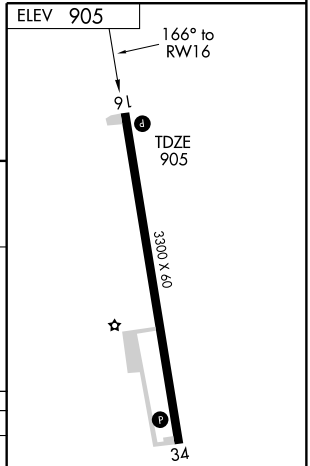
MISSED APPROACH: Climb to 4100 direct IKLAJ WP and hold.

FARGO ASOS	FARGO APP CON ★	CTAF
124.5	120.4 377.15	122.9 L





CATEGORY	A	B	C	D
LNAV MDA	1480-1 575 (600-1)		1480-1½ 575 (600-1½)	NA
CIRCLING	1520-1 615 (700-1)		1520-1¾ 615 (700-1¾)	NA



MIRL Rwy 16-34 L

NC-1. 08 APR 2010 to 06 MAY 2010

APP CRS	Rwy Idg	3300
346°	TDZE	905
	Apt Elev	905

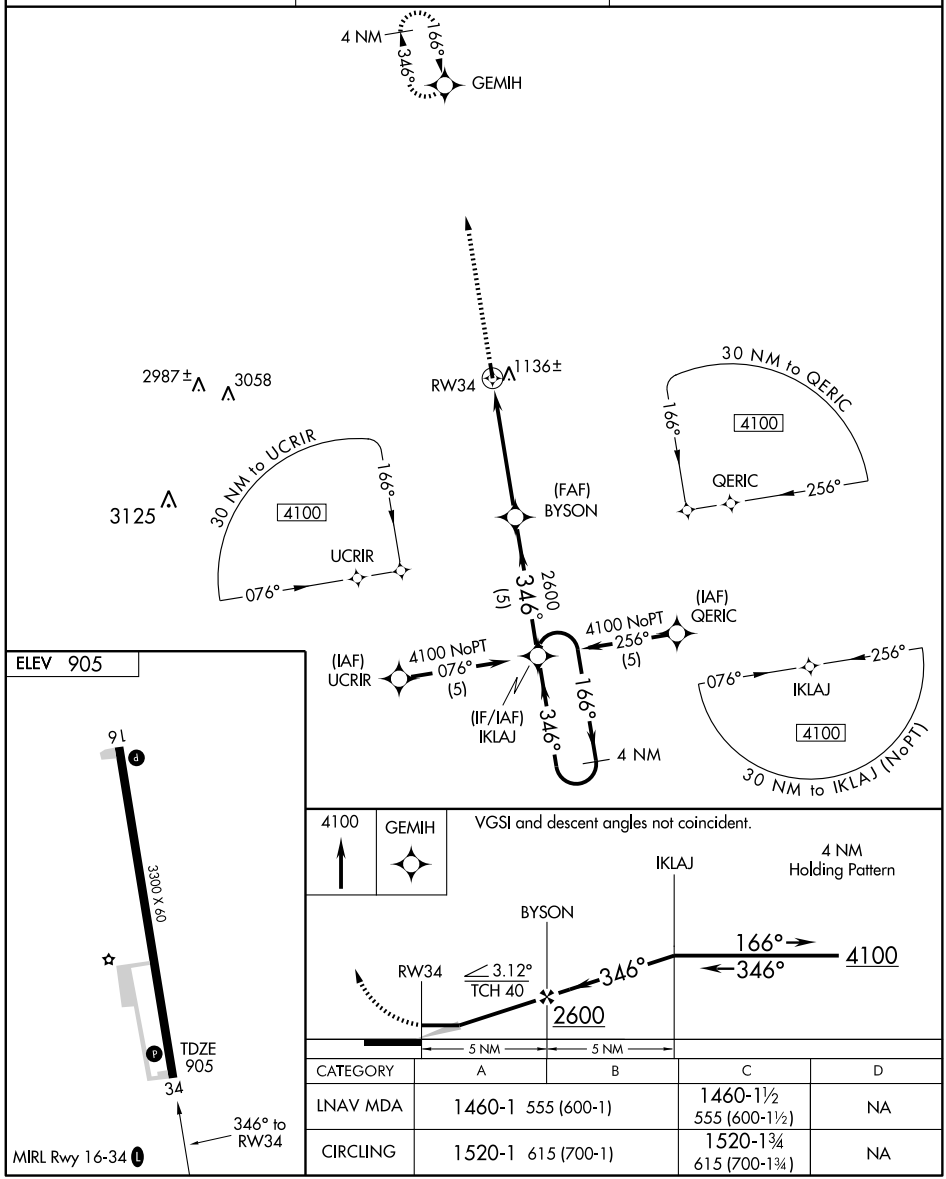
RNAV (GPS) RWY 34
HILLSBORO MUNI (3H4)

T NA

DME/DME RNP- 0.3 NA.
Use Fargo altimeter setting.

MISSED APPROACH: Climb to 4100 direct GEMIH WP and hold.

FARGO ASOS	FARGO APP CON★	CTAF
124.5	120.4 377.15	122.9 L



CATEGORY	A	B	C	D
LNAV MDA	1460-1 555 (600-1)		1460-1½ 555 (600-1½)	NA
CIRCLING	1520-1 615 (700-1)		1520-1¾ 615 (700-1¾)	NA

NC-1. 08 APR 2010 to 06 MAY 2010

LOC/DME I-JMS	APP CRS	Rwy Idg 6502
109.3	307°	TDZE 1498
Chan 30		Apt Elev 1500

ILS or LOC RWY 31

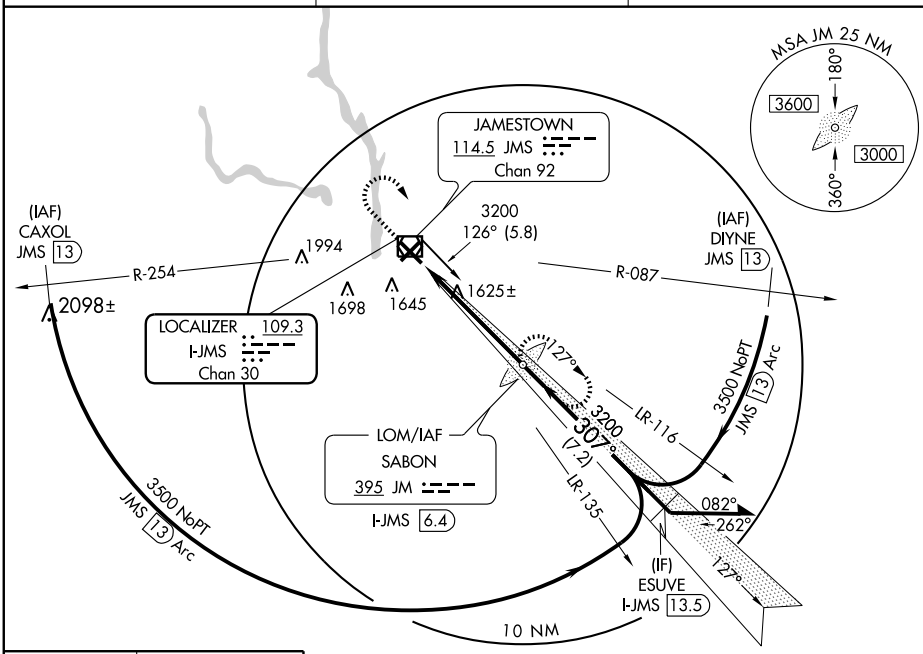
JAMESTOWN RGNL (JMS)

T
NA

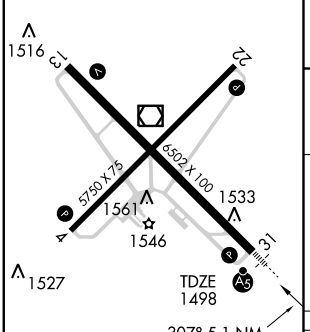
MALSR

MISSED APPROACH: Climb to 3200 then right turn direct SABON LOM/I-JMS 6.4 DME and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
118.425	124.2 270.3	123.0 (CTAF) L



ELEV 1500 D



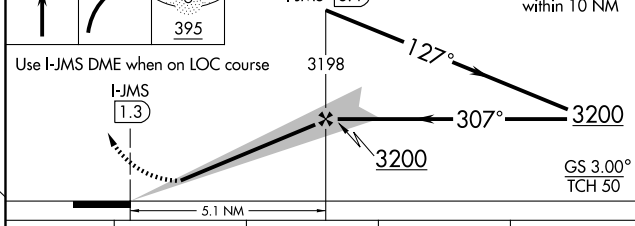
MIRL Rwy 4-22 L
HIRL Rwy 13-31 L
REIL Rwys 4, 13, and 22 L

FAF to MAP 5.1 NM					
Knots	60	90	120	150	180
Min:Sec	5:06	3:24	2:33	2:02	1:42

DME or ADF REQUIRED



Use I-JMS DME when on LOC course



CATEGORY	A	B	C	D
S-ILS 31	1698-½ 200 (200-½)			
S-LOC 31	1880-½ 385 (400-½)			1880-¾ 385 (400-¾)
CIRCLING	1960-1 462 (500-1)		1960-1½ 462 (500-1½)	2060-2 562 (600-2)

NC-1, 08 APR 2010 to 06 MAY 2010

LOC/DME I-JMS	APP CRS	Rwy Idg	6502
109.3	127°	TDZE	1498
Chan 30		Apt Elev	1498

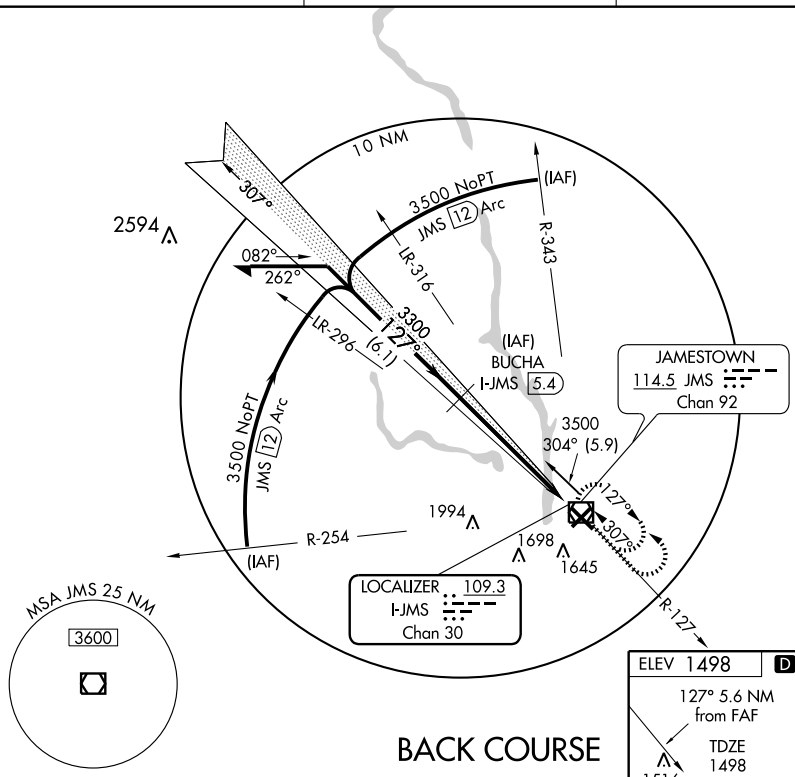
LOC/DME BC RWY 13

JAMESTOWN RGNL (JMS)

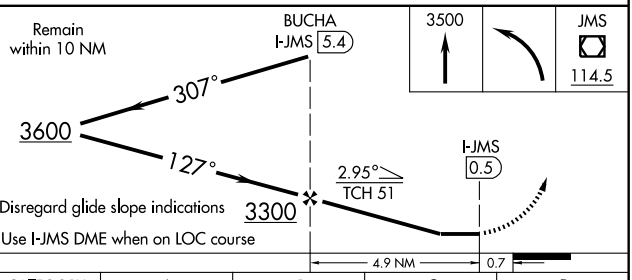
NA

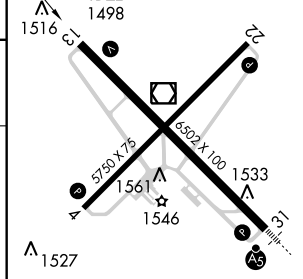
MISSED APPROACH: Climb to 3500 then left turn direct JMS VOR/DME and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
118.425	124.2 270.3	123.0 (CTAF) L



BACK COURSE





REIL Rwys 4, 13, and 22 L
MIRL Rwy 4-22 L
HIRL Rwy 13-31 L

CATEGORY	A	B	C	D
S-13	1860-1 362 (400-1)			1860-1¼ 362 (400-1¼)
CIRCLING	1960-1 462 (500-1)		1960-1½ 462 (500-1½)	2060-2 562 (600-2)

NC-1. 08 APR 2010 to 06 MAY 2010

LOM JM	APP CRS	Rwy Idg	6502
395	307°	TDZE	1495
		Apt Elev	1498

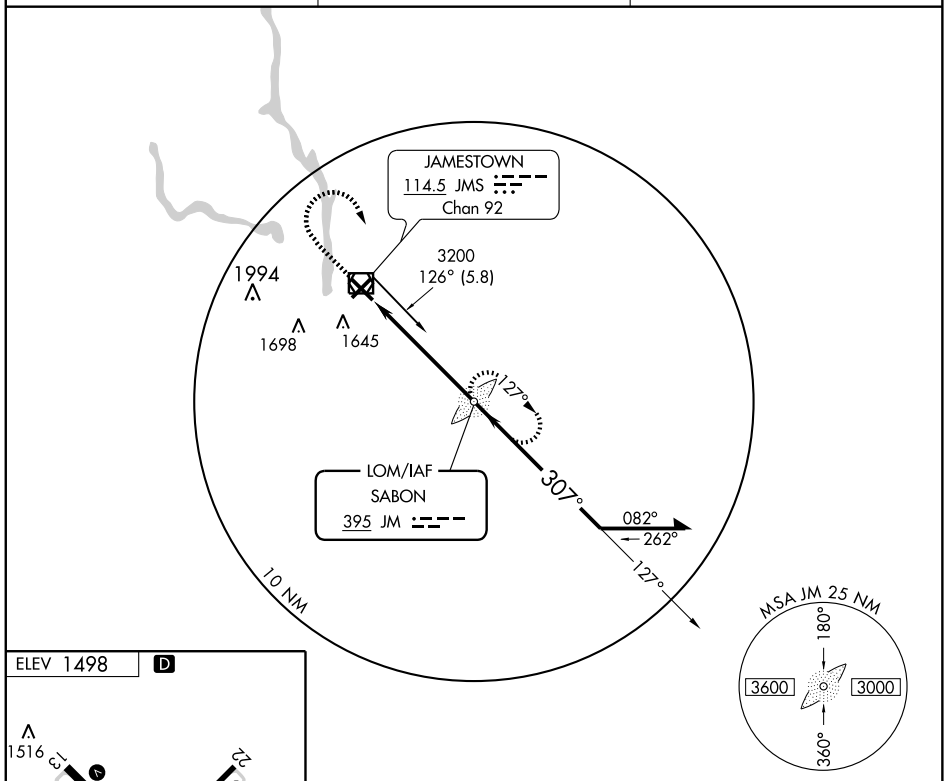
NDB RWY 31
JAMESTOWN RGNL (JMS)

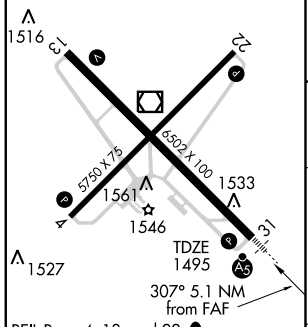
T
NA

MALSR

MISSED APPROACH: Climb to 3200 then right turn direct JM LOM and hold.

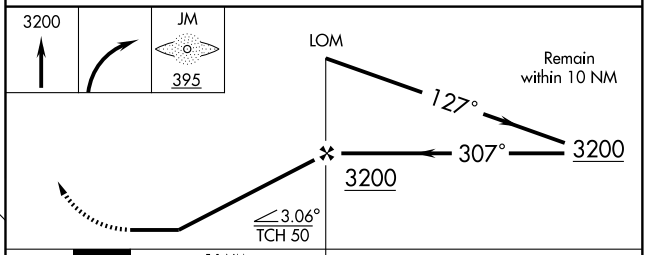
ASOS	MINNEAPOLIS CENTER	UNICOM
118.425	124.2 270.3	123.0 (CTAF) L





REIL Rwys 4, 13, and 22 L
MIRL Rwy 4-22 L
HIRL Rwy 13-31 L

FAF to MAP 5.1 NM					
Knots	60	90	120	150	180
Min:Sec	5:06	3:24	2:33	2:02	1:42



CATEGORY	A	B	C	D
S-31	1940-¾ 445 (500-¾)			1940-1¼ 445 (500-1¼)
CIRCLING	1960-1 462 (500-1)		1960-1½ 462 (500-1½)	2060-2 562 (600-2)

NC-1, 08 APR 2010 to 06 MAY 2010

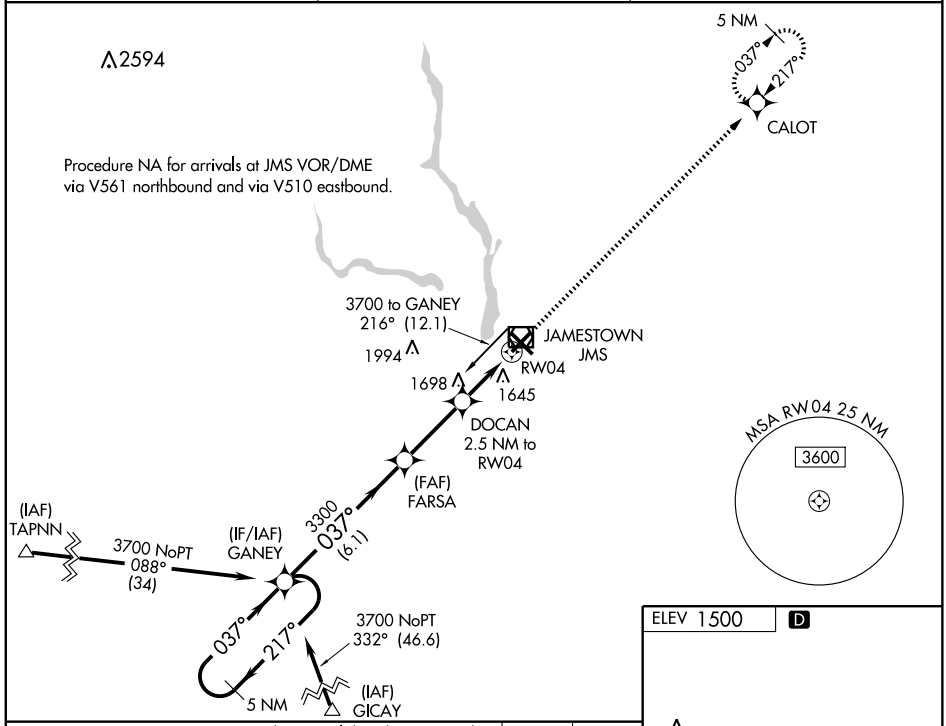
WAAS CH 97505 W04A	APP CRS 037°	Rwy Idg 5750 TDZE 1496 Apt Elev 1500

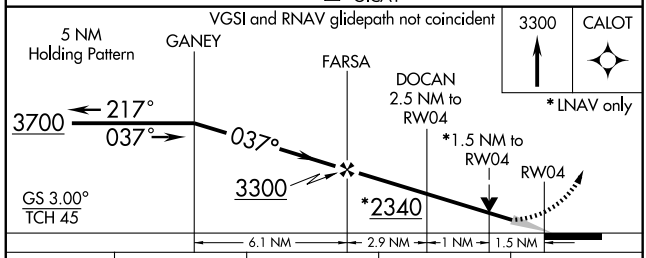
RNAV (GPS) RWY 4
JAMESTOWN RGNL (JMS)

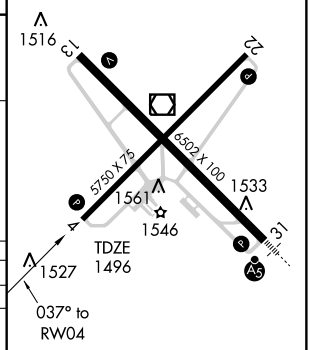
T Baro-VNAV NA when using Devils Lake altimeter setting.
A For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -18°C (0°F) or above 46°C (114°F).
W DME/DME RNP-0.3 NA. VDP NA when using Devils Lake altimeter setting. If local altimeter setting not received, use Devils Lake altimeter setting and increase all DAs 172 feet and all MDAs 180 feet.

MISSED APPROACH: Climb to 3300 direct CALOT and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
118.425	124.2 270.3	123.0 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	1746-1	250 (300-1)		
LNAV/VNAV DA	1930-1½	434 (500-1½)		
LNAV MDA	2000-1	504 (500-1)	2000-1½	504 (500-1½)
CIRCLING	2000-1	500 (500-1)	2000-1½ 500 (500-1½)	2060-2 560 (600-2)

REIL Rwys 4, 13, and 22 L
MIRL Rwy 4-22 L
HIRL Rwy 13-31 L

NC-1. 08 APR 2010 to 06 MAY 2010

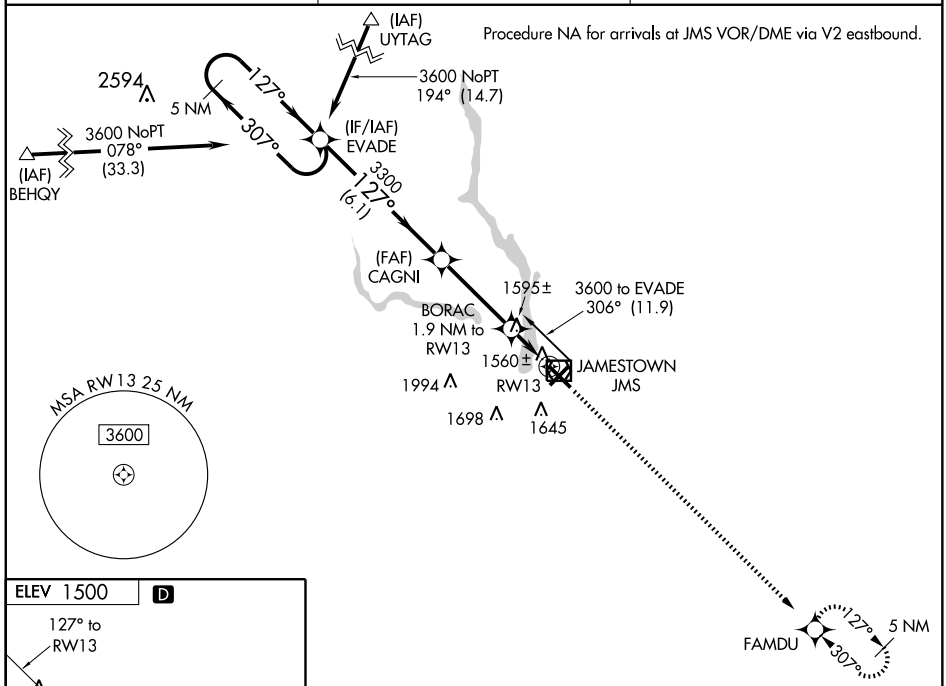
WAAS CH 65805 W13A	APP CRS 127°	Rwy Idg 6502	TDZE 1500	Apt Elev 1500

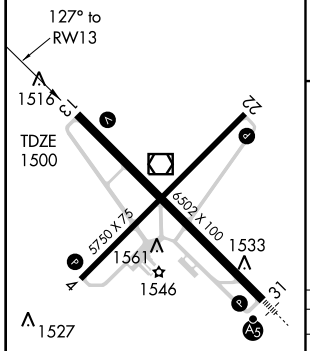
RNAV (GPS) RWY 13
JAMESTOWN RGNL (JMS)

T Baro-VNAV NA when using Devils Lake altimeter setting.
A For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -18°C (0°F) or above 46°C (114°F).
W DME/DME RNP- 0.3 NA. Visibility reduction by helicopters NA.
VDP NA when using Devils Lake altimeter setting.
If local altimeter setting not received, use Devils Lake altimeter setting and increase all DAs 172 feet and all MDAs 180 feet.

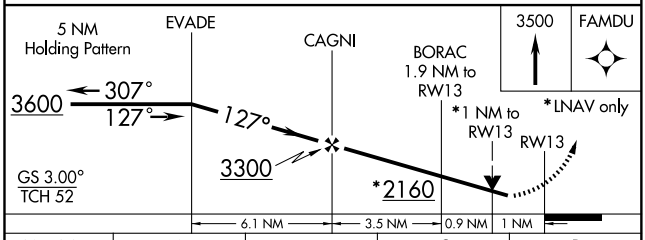
MISSED APPROACH: Climb to 3500 direct FAMDU and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
118.425	124.2 270.3	123.0 (CTAF) L





REIL Rwys 4, 13, and 22 L
MIRL Rwy 4-22 L
HIRL Rwy 13-31 L



CATEGORY	A	B	C	D
LPV DA	1787-1 287 (300-1)			
LNAV/VNAV DA	1820-1 320 (400-1)			
LNAV MDA	1860-1 360 (400-1)			1860-1¼ 360 (400-1¼)
CIRCLING	1960-1 460 (500-1)		1960-1½ 460 (500-1½)	2060-2 560 (600-2)

NC-1. 08 APR 2010 to 06 MAY 2010

WAAS	APP CRS	Rwy Idg	5750
CH 70505	217°	TDZE	1500
W22A		Apt Elev	1500

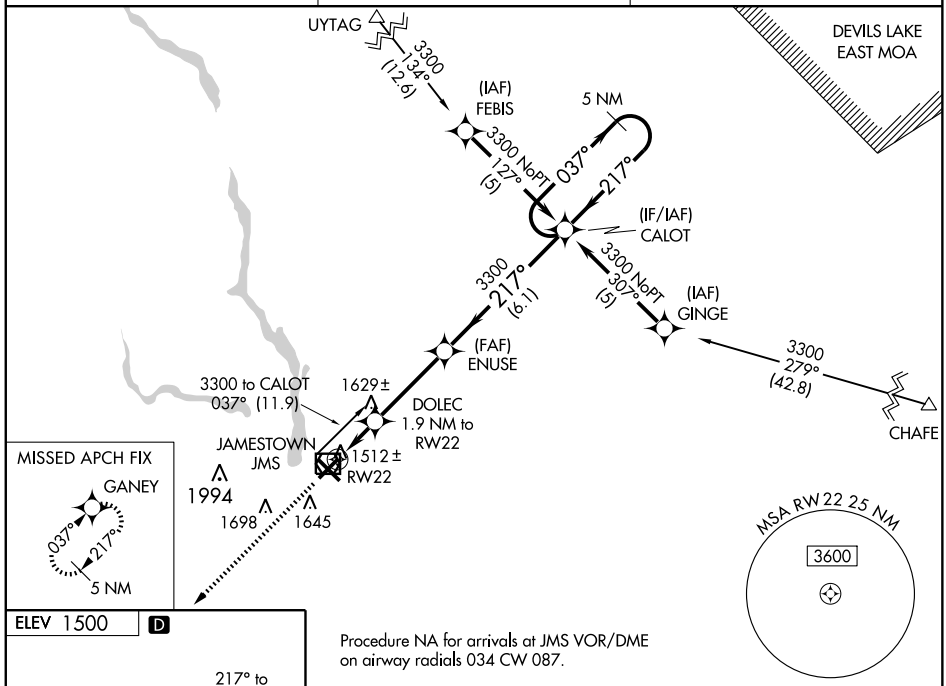
RNAV (GPS) RWY 22

JAMESTOWN RGNL (JMS)

T Baro-VNAV NA when using Devils Lake altimeter setting.
A For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -18°C (0°F) or above 46°C (114°F).
W DME/DME RNP- 0.3 NA. VDP NA when using Devils Lake altimeter setting. If local altimeter setting not received, use Devils Lake altimeter setting and increase all DAs 172 feet and all MDAs 180 feet.

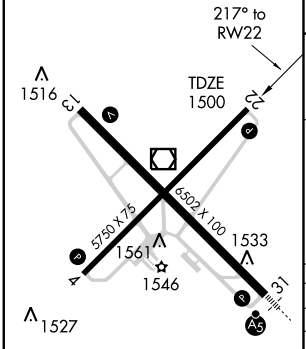
MISSED APPROACH: Climb to 3700 direct GANEY and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
118.425	124.2 270.3	123.0 (CTAF) L

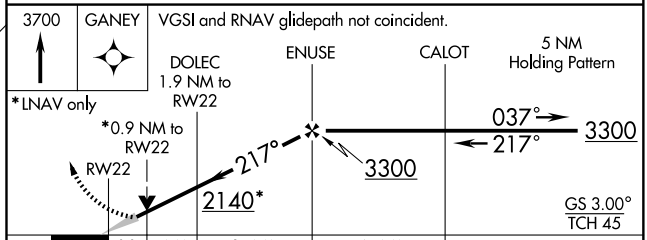


ELEV 1500 D

Procedure NA for arrivals at JMS VOR/DME on airway radials 034 CW 087.



REIL Rwys 4, 13, and 22 L
MIRL Rwy 4-22 L
HIRL Rwy 13-31 L



CATEGORY	A	B	C	D
LPV DA	1750-1 250 (300-1)			
LNAV/VNAV DA	1772-1 272 (300-1)			
LNAV MDA	1800-1 300 (300-1)			
CIRCLING	1960-1 460 (500-1)		1960-1½ 460 (500-1½)	2060-2 560 (600-2)

NC-1. 08 APR 2010 to 06 MAY 2010

WAAS CH 66014 W31A	APP CRS 307°	Rwy Idg 6502 TDZE 1498 Apt Elev 1500

RNAV (GPS) RWY 31

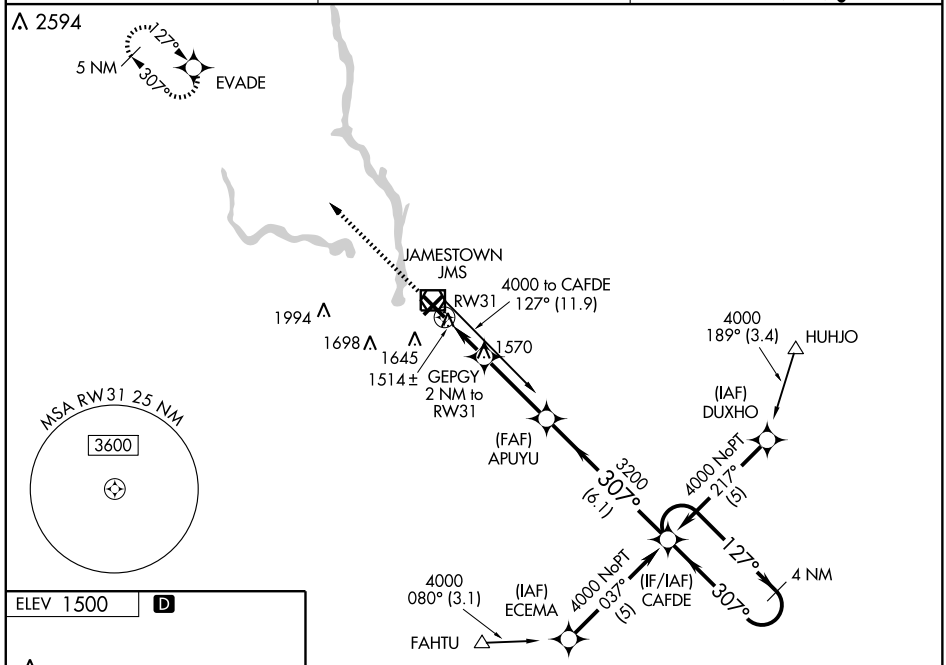
JAMESTOWN RGNL (JMS)

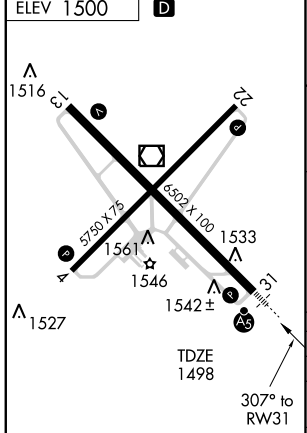
For inoperative MALSR, increase LNAV Cat D visibility to 1¼ mile. Baro-VNAV NA when using Devils Lake altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -18°C (0°F) or above 46°C (114°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Devils Lake altimeter setting and increase all DA 172 feet, all MDA 180 feet, increase LPV all Cats visibility ¼ mile, LNAV/VNAV all Cats visibility ½ mile, LNAV Cat C visibility ½ mile, Cat D visibility ¼ mile, Circling Cats C and D visibility ¼ mile. VDP NA with Devils Lake altimeter setting.
For inoperative MALSR when using Devils Lake altimeter setting increase LPV all Cats visibility to 1¼ mile. Inoperative table does not apply to LNAV Cats C and D when using Devils Lake altimeter setting.

MALSR

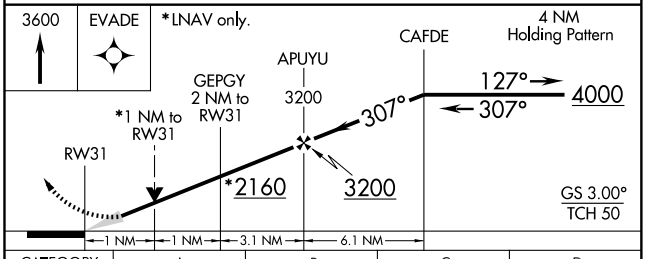
MISSED APPROACH: Climb to 3600 direct EVADE and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
118.425	124.2 270.3	123.0 (CTAF) L





REIL Rwys 4, 13, and 22 L
MIRL Rwy 4-22 L
HIRL Rwy 13-31 L



CATEGORY	A	B	C	D
LPV DA	1698-½ 200 (200-½)			
LNAV/VNAV DA	1836-¾ 338 (400-¾)			
LNAV MDA	1880-½ 382 (400-½)			1880-1 382 (400-1)
CIRCLING	1960-1 460 (500-1)		1960-1½ 460 (500-1½)	2060-2 560 (600-2)

NC-1, 08 APR 2010 to 06 MAY 2010

VOR/DME JMS	APP CRS	Rwy Idg	6502
114.5	117°	TDZE	1500
Chan 92		Apt Elev	1500

VOR RWY 13
JAMESTOWN RGNL (JMS)

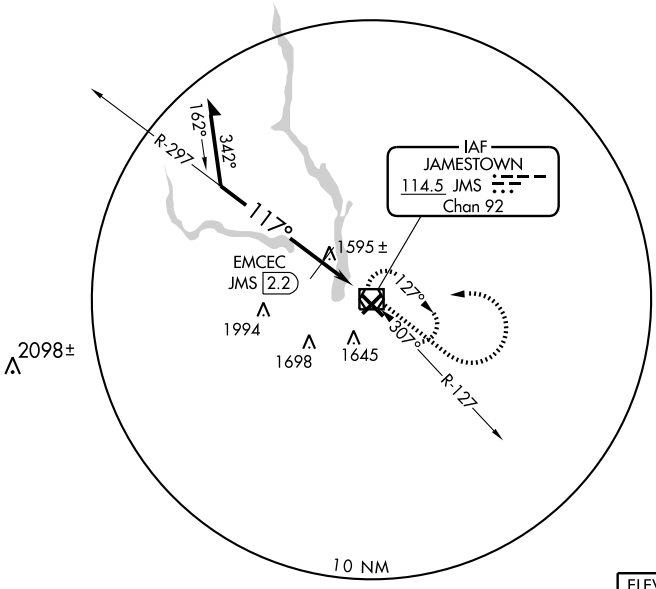
If local altimeter setting not received, procedure NA.
Visibility reduction by helicopters NA.

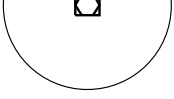
MISSED APPROACH: Climb to 3500 then left turn direct JMS VOR/DME and hold.

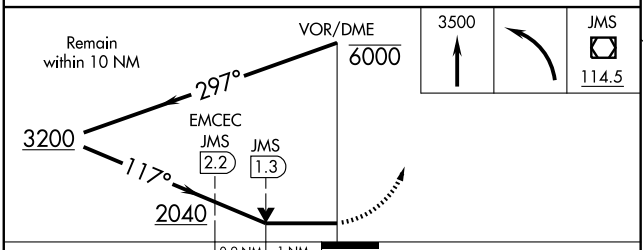
ASOS	MINNEAPOLIS CENTER	UNICOM
118.425	124.2 270.3	123.0 (CTAF) L

Procedure NA for arrivals at JMS VOR/DME via V561 northbound.

DEVILS LAKE EAST MOA

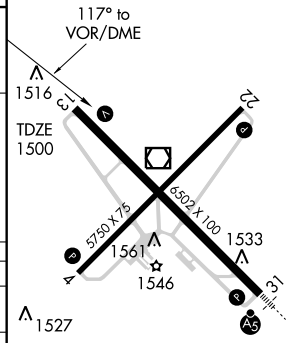






CATEGORY	A	B	C	D
S-13	2040-1	540 (600-1)	2040-1½ 540 (600-1½)	2040-1¾ 540 (600-1¾)
CIRCLING	2040-1	540 (600-1)	2040-1½ 540 (600-1½)	2060-2 560 (600-2)
EMCEC FIX MINIMUMS				
S-13	1860-1 360 (400-1)			1860-1¼ 360 (400-1¼)
CIRCLING	1960-1	460 (500-1)	1960-1½ 460 (500-1½)	2060-2 560 (600-2)

ELEV 1500 D



REIL Rwys 4, 13, and 22 L
MIRL Rwy 4-22 L
HIRL Rwy 13-31 L

NC-1. 08 APR 2010 to 06 MAY 2010

VOR/DME JMS	APP CRS	Rwy Idg	6502
114.5	311°	TDZE	1498
Chan 92		Apt Elev	1500

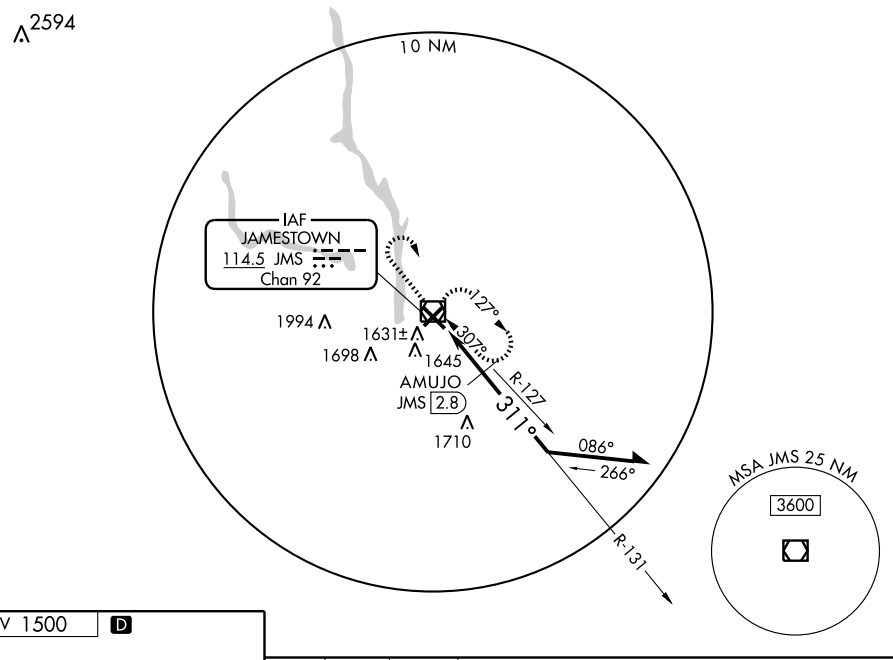
VOR RWY 31
JAMESTOWN RGNL (JMS)

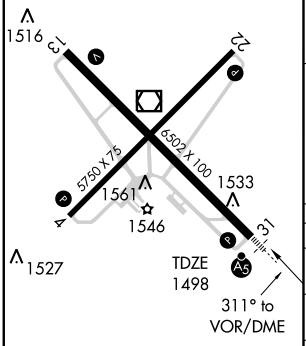
For inoperative MALSR, increase AMUJO FIX minimums S-31 Cat D visibility to 1¼ mile. VDP NA with Devils Lake altimeter setting. When local altimeter setting not received, use Devils Lake altimeter setting and increase all MDA 180 feet, increase S-31 Cats C and D visibility ¾ mile, Circling Cats C and D visibility ½ mile, increase AMUJO FIX minimums S-31 Cat C and Circling Cats C and D visibility ¼ mile.

MALSR

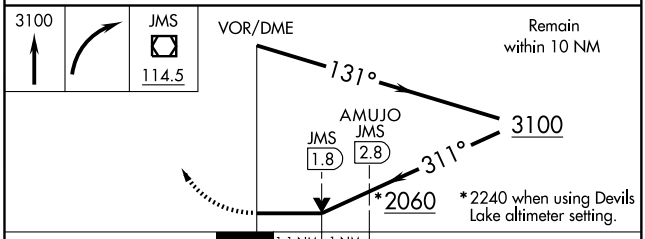
MISSED APPROACH: Climb to 3100 then right turn direct JMS VOR/DME and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
118.425	124.2 270.3	123.0 (CTAF) L





REIL Rwys 4, 13, and 22 L
MIRL Rwy 4-22 L
HIRL Rwy 13-31 L



CATEGORY	A	B	C	D
S-31	2060-½	562 (600-½)	2060-1 562 (600-1)	2060-1¼ 562 (600-1¼)
CIRCLING	2060-1	560 (600-1)	2060-1½ 560 (600-1½)	2060-2 560 (600-2)
AMUJO FIX MINIMUMS				
S-31	1900-½	402 (400-½)	1900-¾ 402 (400-¾)	1900-1 402 (400-1)
CIRCLING	1960-1	460 (500-1)	1960-1½ 460 (500-1½)	2060-2 560 (600-2)

NC-1, 08 APR 2010 to 06 MAY 2010

KENMARE, NORTH DAKOTA

AL-9453 (FAA)

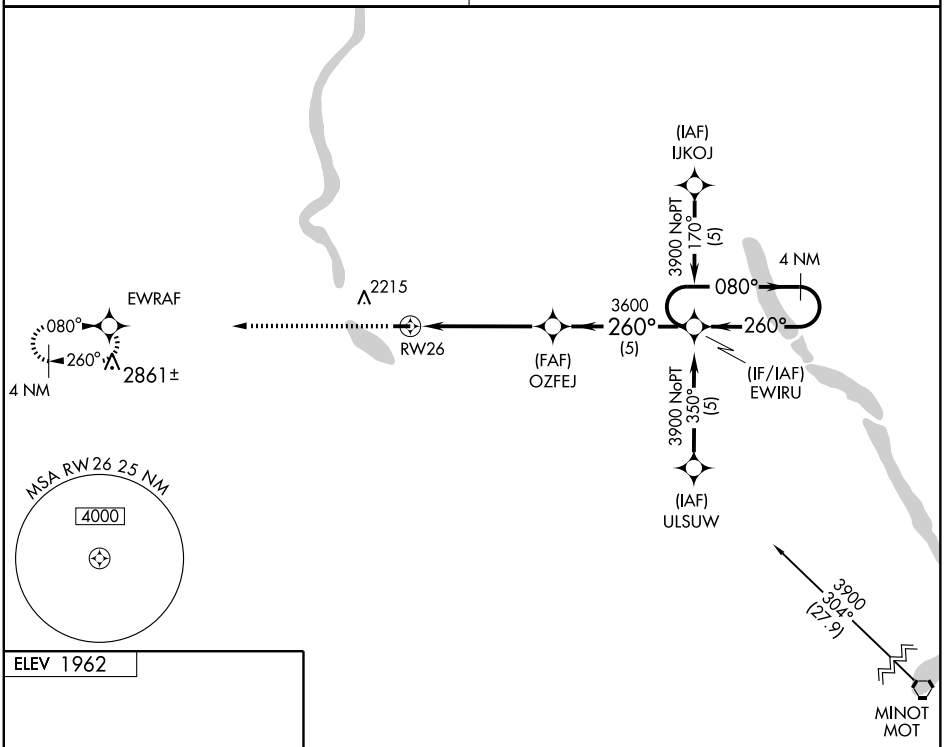
APP CRS	Rwy Idg	3700
260°	TDZE	1960
	Apt Elev	1962

RNAV (GPS) RWY 26

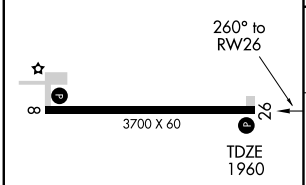
KENMARE MUNI (7K5)

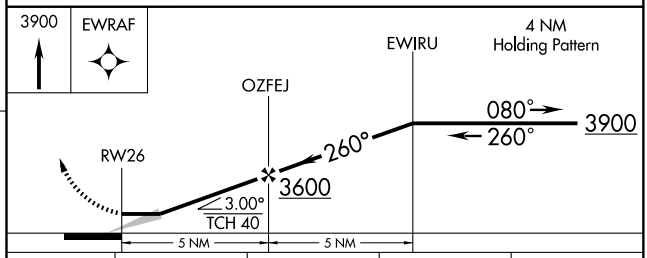
NA	Use Minot Intl altimeter setting. GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.	MISSED APPROACH: Climb to 3900 direct EWRAF WP and hold.

MINOT APP CON ★	CTAF
119.6 363.8	122.8 L



ELEV 1962





CATEGORY	A	B	C	D
LNAV MDA	2420-1	460 (500-1)	NA	
CIRCLING	2580-1 618 (700-1)	2640-1 678 (700-1)	NA	

MIRL Rwy 8-26 L

NC-1. 08 APR 2010 to 06 MAY 2010

VOR/DME BIS 116.5 Chan 112	APP CRS 260°	Rwy Idg N/A TDZE N/A Apt Elev 1944

VOR or GPS-A

MANDAN MUNI (Y19)

NA
ASR

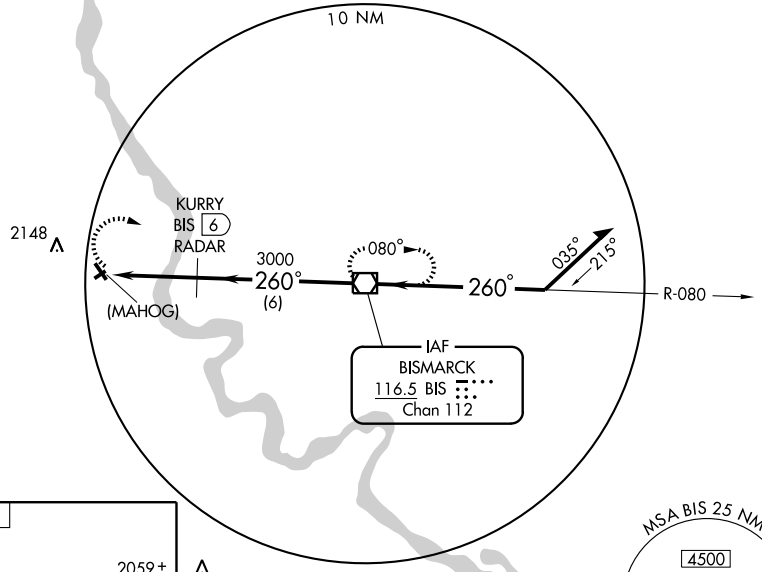
Use Bismarck altimeter setting.

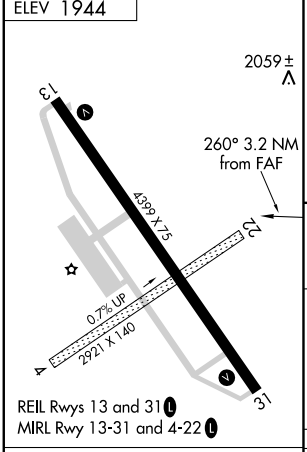
MISSED APPROACH: Climbing right turn to 3500 direct BIS VOR/DME and hold.

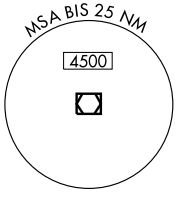
AWOS-3	BISMARCK APP CON ★	UNICOM
118.225	126.3 298.9	122.8 (CTAF) L

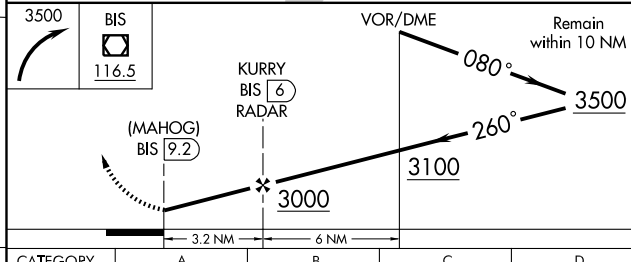
NoPT for arrivals on BIS VOR/DME airway radials 029 clockwise to 159.

DME or RADAR REQUIRED





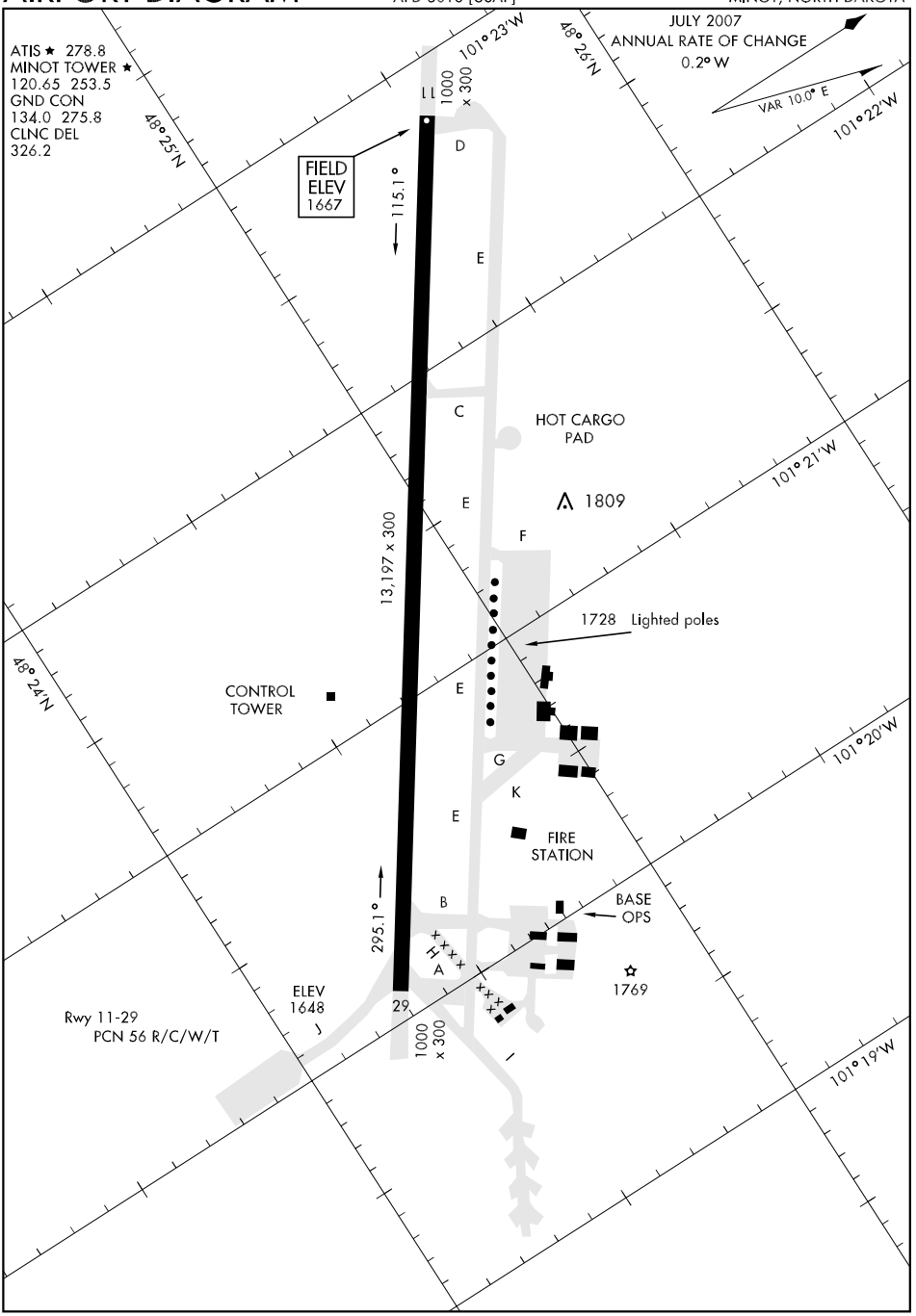




FAF to MAP 3.2 NM					
Knots	60	90	120	150	180
Min:Sec	3:12	2:08	1:36	1:17	1:04

CATEGORY	A	B	C	D
CIRCLING	2420-1 478 (500-1)	2500-1 558 (600-1)	2500-1½ 558 (600-1½)	2500-2 558 (600-2)

NC-1, 08 APR 2010 to 06 MAY 2010



NC-1, 08 APR 2010 to 06 MAY 2010

COPTER TACAN 122°

TACAN MIB Chan 96	APCH CRS 122°	Rwy ldg 13,197 TDZE 1667 Arpt Elev 1667	AL-5013 [USAF]	MINOT AFB (KMIB)

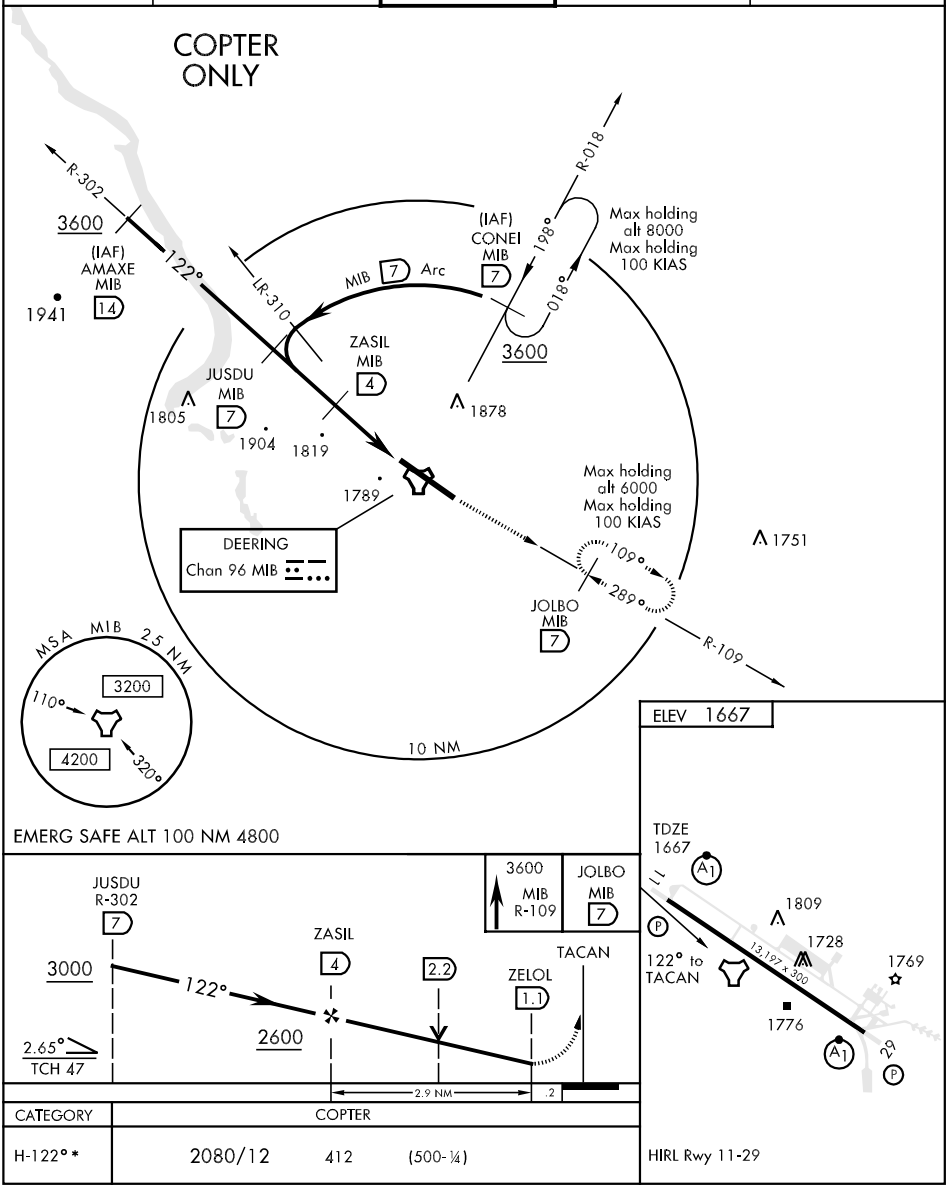
* When ALS inop, increase RVR to 24 and vis to ½ mile.

ALSF-1

MISSED APPROACH: Climb to 3600 via MIB R-109 direct JOLBO MIB 7 DME and hold.

ATIS ★	MINOT APP CON	MINOT TOWER ★	GND CON	CLNC DEL
278.8	119.6 363.8	120.65 253.5	134.0 275.8	326.2

NC-1, 08 APR 2010 to 06 MAY 2010



CATEGORY	COPTER		
H-122°*	2080/12	412	(500-¼)

HIRL Rwy 11-29

COPTER TACAN 289°

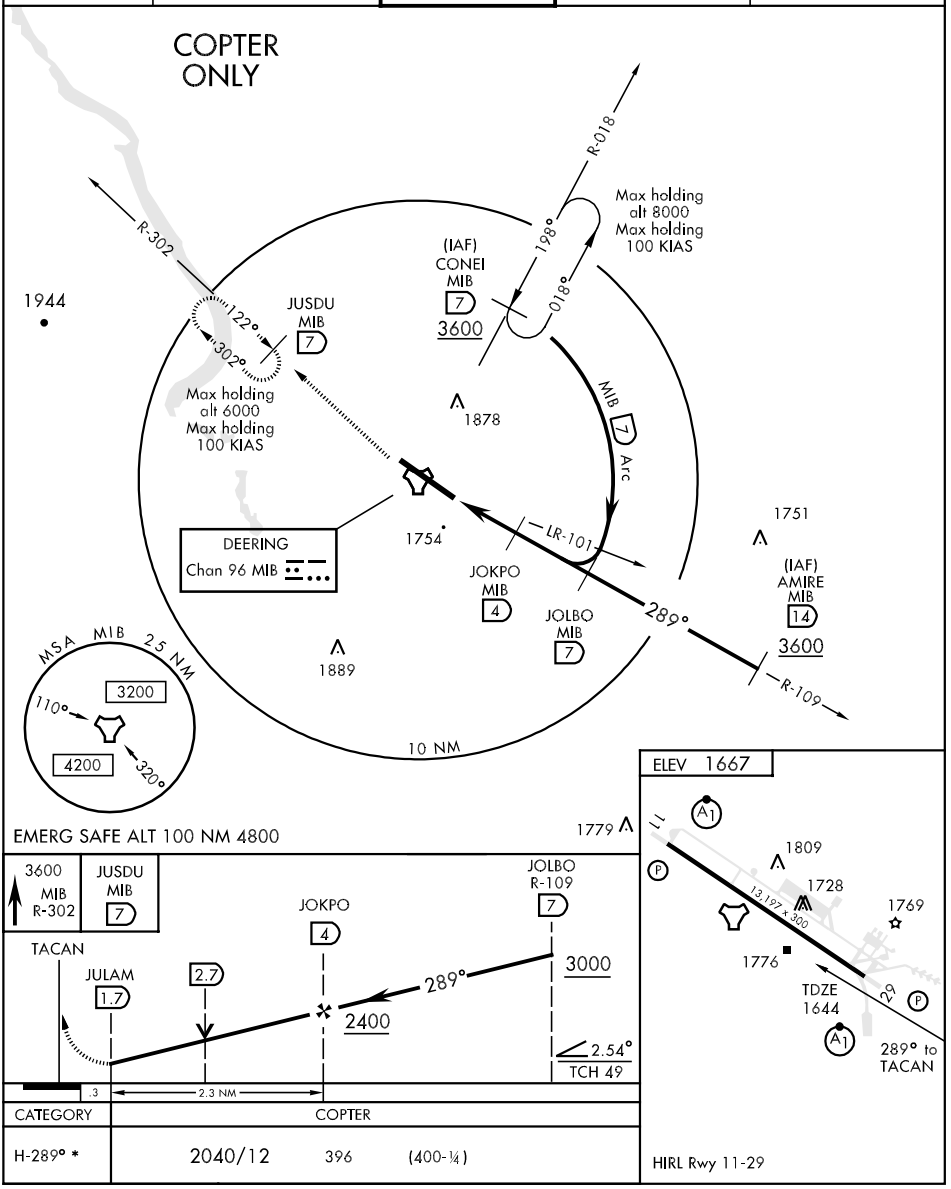
TACAN MIB Chan 96	APCH CRS 289°	Rwy ldg 13,197 TDZE 1644 Arpt Elev 1667	AL-5013 [USAF]	MINOT AFB (KMIB)

* When ALS inop, increase RVR to 24 and vis to ½ mile.

ALSF-1

MISSED APPROACH: Climb to 3600 via MIB R-302 direct JUSDU MIB 7 DME and hold.

ATIS ★	MINOT APP CON	MINOT TOWER ★	GND CON	CLNC DEL
278.8	119.6 363.8	120.65 253.5	134.0 275.8	326.2



CATEGORY	COPTER		
H-289° *	2040/12	396	(400-¼)

HI-ILS RWY 11

LOC I-MJW	APCH CRS	Rwy ldg 13,197 TDZE 1667 Arpt Elev 1667
109.9	115°	

JAL-5013 [USAF]

MINOT AFB (KMIB)

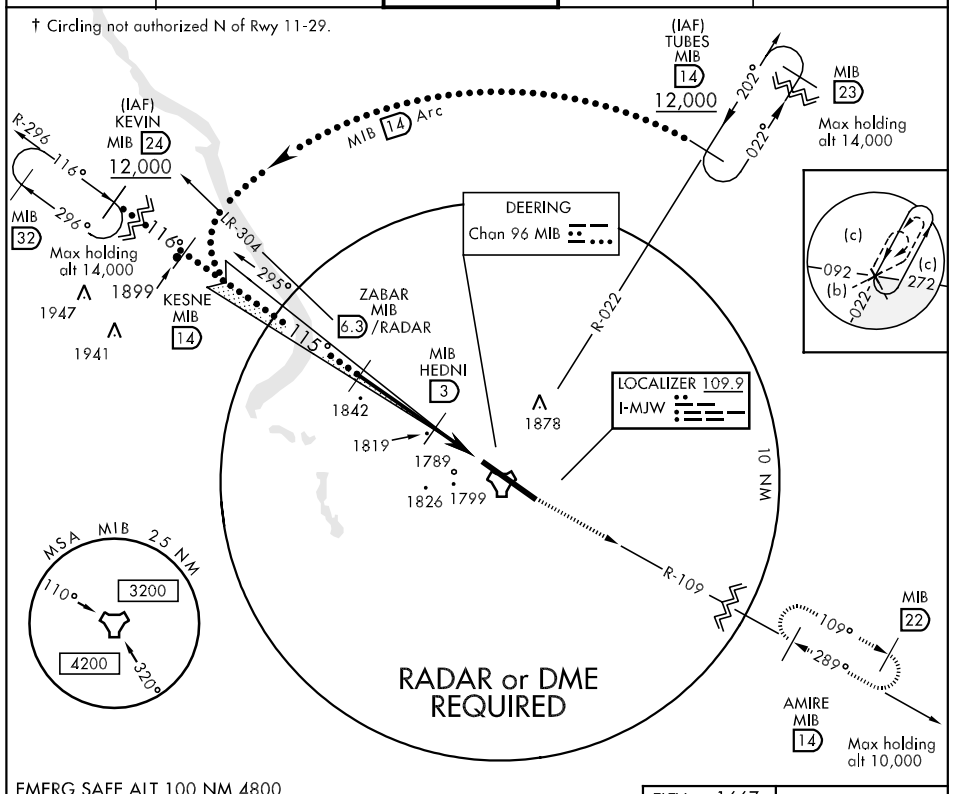
* When ALS inop, increase RVR to 40 and vis to ¾ mile.
** When ALS inop, increase CAT C RVR to 50 and vis to 1 mile, CAT D RVR to 60 and vis to 1¼ miles, CAT E vis to 1½ miles.

ALSF-1

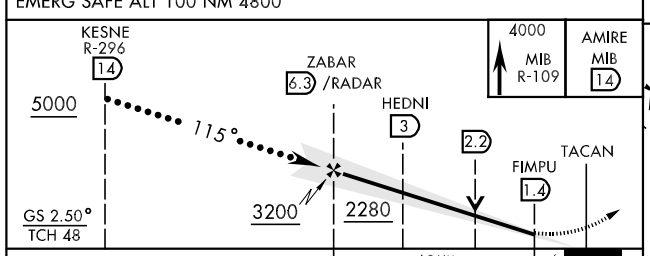
MISSED APPROACH: Climb to 4000 via MIB R-109 direct AMIRE and hold.

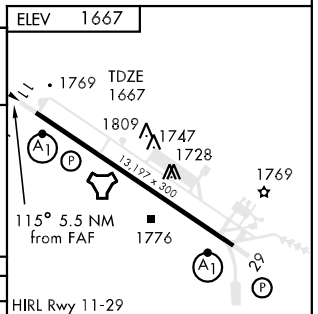
ATIS ★	MINOT APP CON	MINOT TOWER ★	GND CON	CLNC DEL
278.8	119.6 363.8	120.65 253.5	134.0 275.8	326.2

† Circling not authorized N of Rwy 11-29.



EMERG SAFE ALT 100 NM 4800





CATEGORY	C	D	E
S-ILS 11 *	1867/24	200	(200-½)
S-LOC 11 **	2060/40 393	(400-¾)	2060/50 393 (400-1)
CIRCLING †	2120-1½ 453 (500-1½)	2220-2 553	(600-2)

FAF to MAP 4.9 NM

Knots	120	140	160	180	200
Min:Sec	2:27	2:06	1:50	1:38	1:28

NC-1, 08 APR 2010 to 06 MAY 2010

HI-ILS RWY 29

LOC I-MIB	APCH CRS	Rwy ldg 13,197 TDZE 1644 Arpt Elev 1667
109.9	295°	

JAL-5013 [USAF]

MINOT AFB (KMIB)

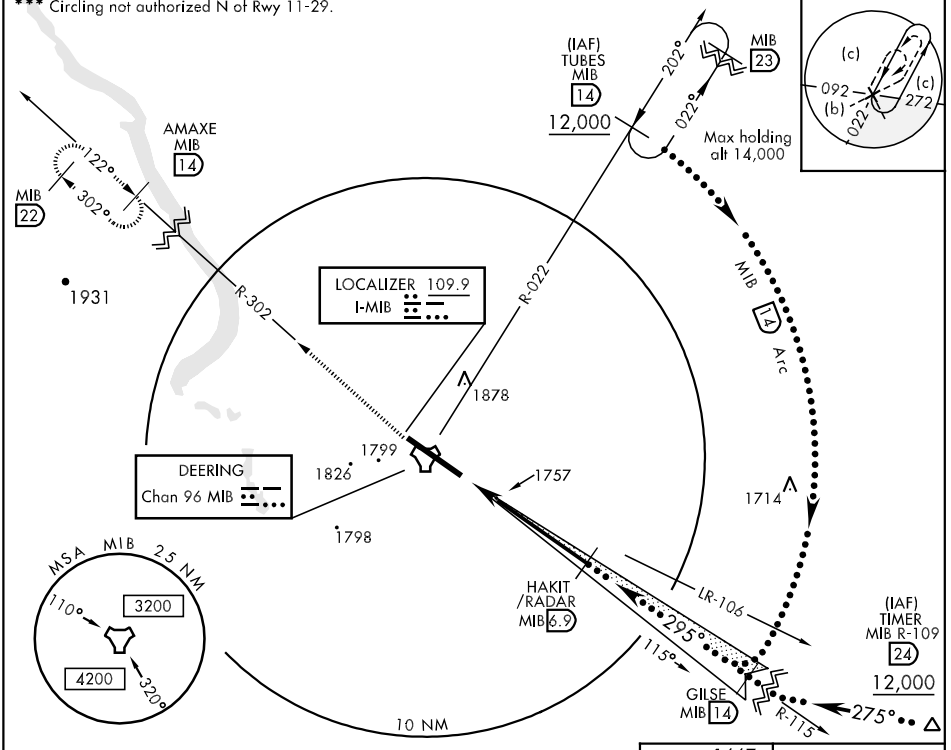
* When ALS inop, increase RVR to 40 and vis to ¾ mile.
** When ALS inop, increase CAT C RVR to 50 and vis to 1 mile, CAT DE RVR to 60 and vis to 1¼ miles.

ALSF-1

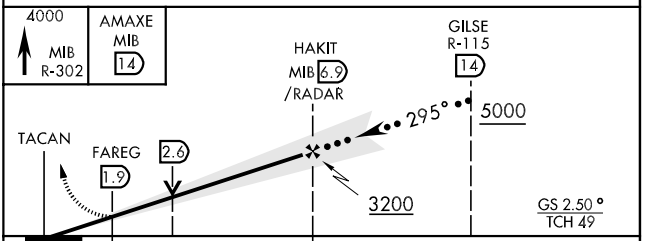
MISSED APPROACH: Climb to 4000 via MIB R-302 direct AMAXE and hold.

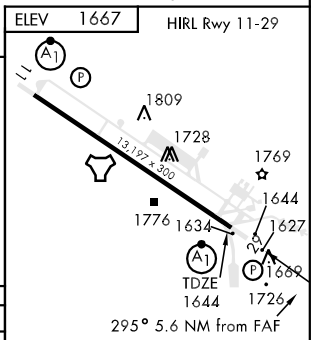
ATIS ★	MINOT APP CON	MINOT TOWER ★	GND CON	CLNC DEL
278.8	119.6 363.8	120.65 253.5	134.0 275.8	326.2

*** Circling not authorized N of Rwy 11-29.



EMERG SAFE ALT 100 NM 4800





CATEGORY	C	D	E
S-ILS 29*	1844/24	200	(200-½)
S-LOC 29**	2020/40	376	(400-¾)
CIRCLING***	2120-1½ 453 (500-1½)	2220-2 553	(600-2)

FAF to MAP 5.0 NM

Knots	120	140	160	180	200
Min:Sec	2:30	2:09	1:52	1:40	1:30

HI-TACAN RWY 11

TACAN MIB Chan 96	APCH CRS 122°	Rwy ldg 13,197 TDZE 1667 Arpt Elev 1667

JAL-5013 [USAF]

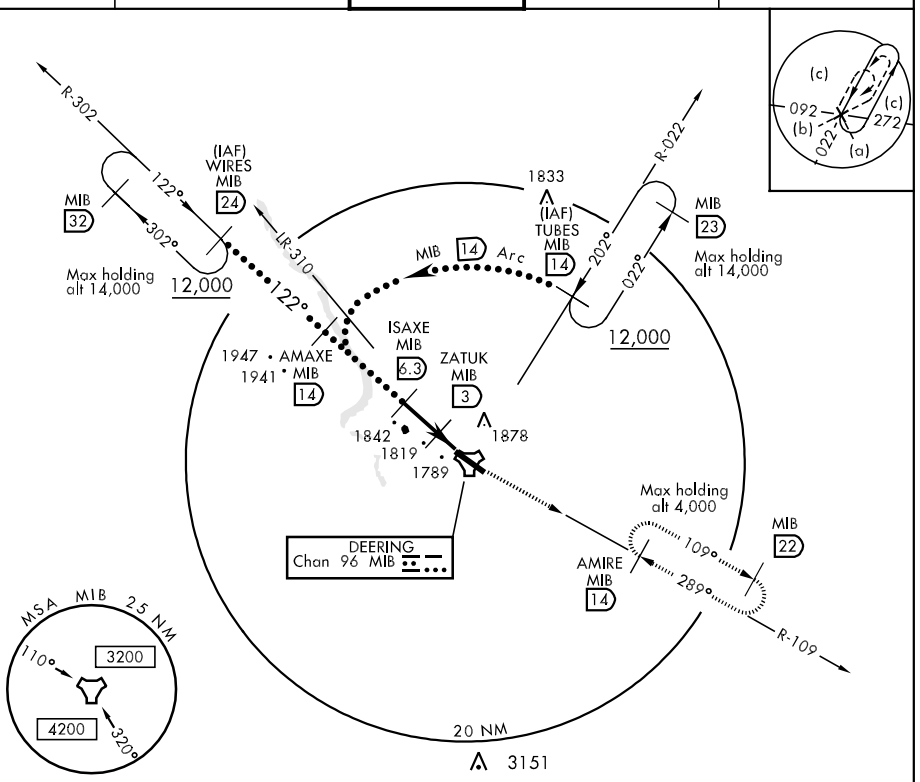
MINOT AFB (KMIB)

* When ALS inop, increase CAT CD RVR to 60 and vis to 1¼ miles, CAT E vis to 1½ miles.
** Circling not authorized N of Rwy 11-29.

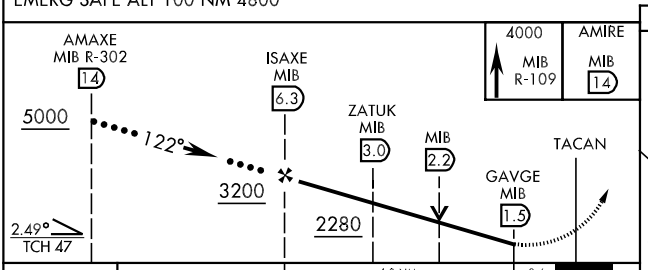
ALSF-1

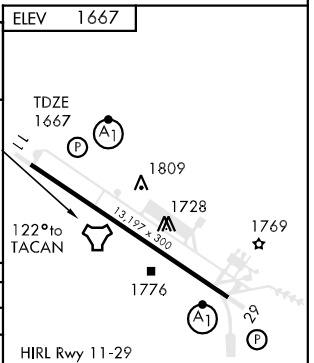
MISSED APPROACH: Climb to 4000 via MIB R-109 direct AMIRE and hold.

ATIS ★	MINOT APP CON	MINOT TOWER ★	GND CON	CLNC DEL
278.8	119.6 363.8	120.65 253.5	134.0 275.8	326.2



EMERG SAFE ALT 100 NM 4800





CATEGORY	C	D	E
S-11 *	2080/40 413 (500-¾)		2080/50 413 (500-1)
CIRCLING **	2120-1½ 453 (500-1½)	2220-2 553 (600-2)	

HI-TACAN RWY 29

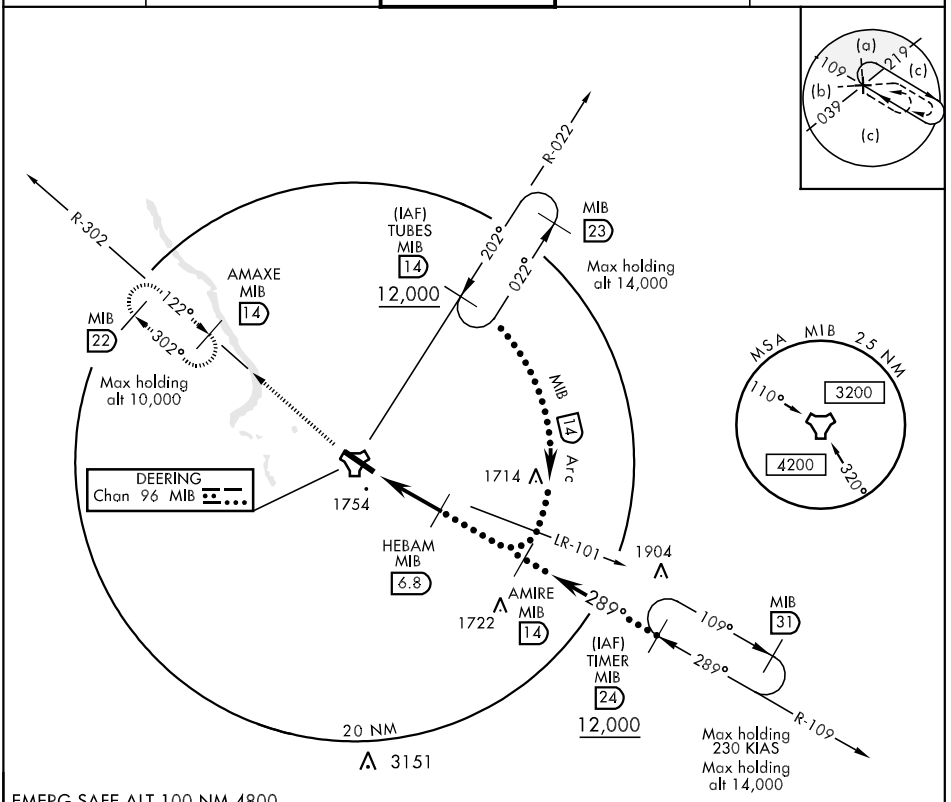
TACAN MIB Chan 96	APCH CRS 289°	Rwy ldg 13,197 TDZE 1644 Arpt Elev 1667	JAL-5013 [USAF]	MINOT AFB (KMIB)

* When ALS inop, increase CAT C RVR to 50 and vis to 1 mile, CAT D RVR to 60 and vis to 1¼ miles, CAT E vis to 1½ miles.
** Circling not authorized N of Rwy 11-29.

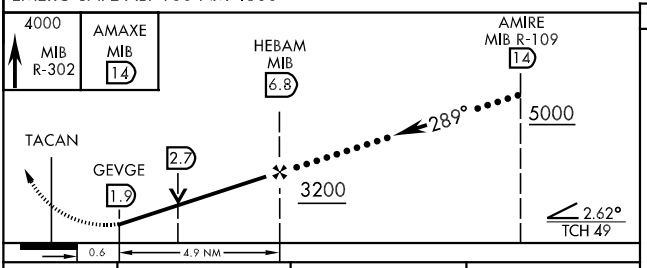
ALSF-1

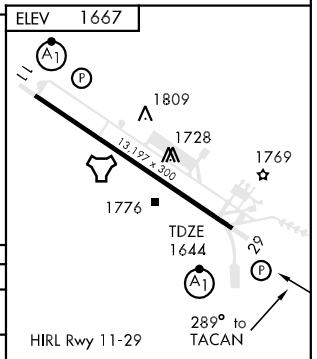
MISSED APPROACH: Climb to 4000 via MIB R-302 direct AMAXE and hold.

ATIS ★	MINOT APP CON	MINOT TOWER ★	GND CON	CLNC DEL
278.8	119.6 363.8	120.65 253.5	134.0 275.8	326.2



EMERG SAFE ALT 100 NM 4800





CATEGORY	C	D	E
S-29 *	2040/40 396 (400-¾)		2040/50 396 (400-1)
CIRCLING **	2120-1½ 453 (500-1½)	2220-2 553 (600-2)	

ILS RWY 11

LOC I-MJW	APCH CRS	Rwy ldg 13,197 / TDZE 1667 / Arpt Elev 1667	AL-5013 [USAF]	MINOT AFB (KMIB)
109.9	115°			

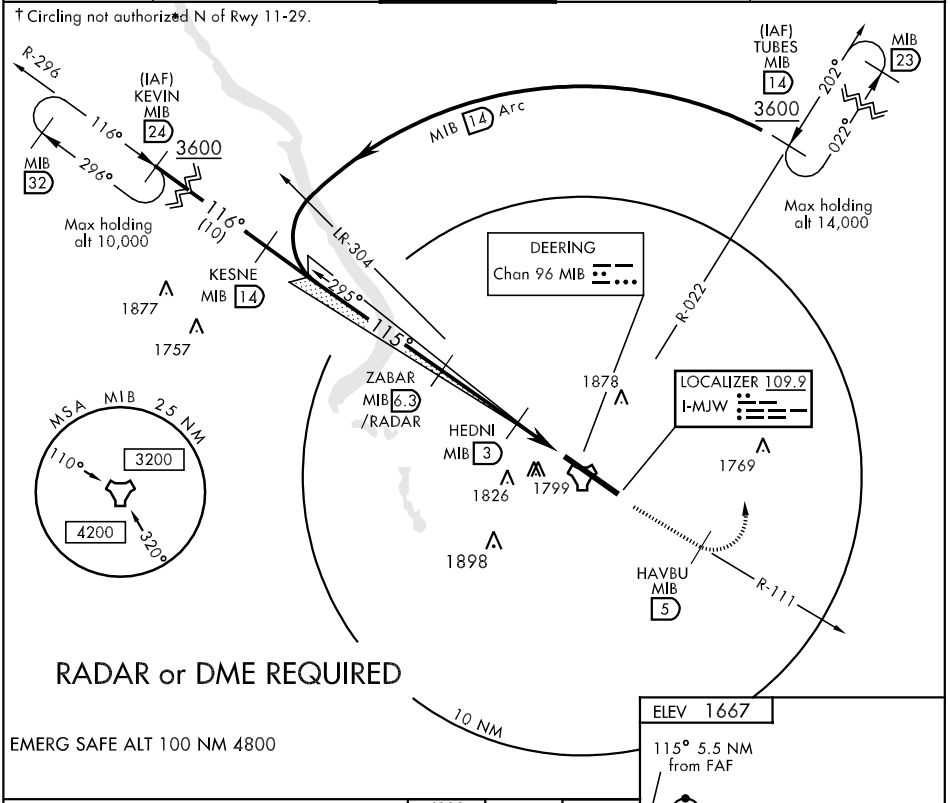
* When ALS inop, increase RVR to 40 and vis to ¾ mile.
** When ALS inop, increase CAT ABC RVR to 50 and vis to 1 mile, CAT D RVR to 60 and vis to 1¼ miles, CAT E vis to 1½ miles.

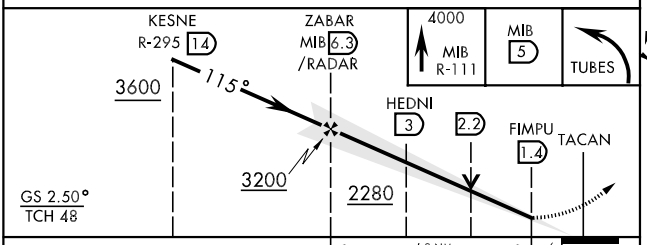
ALSF-1

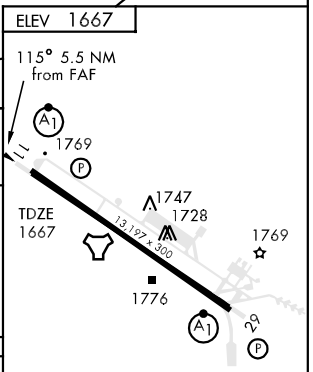
MISSED APPROACH: Climb to 4000 via MIB R-111 at 5 DME turn left direct TUBES and hold.

ATIS ★	MINOT APP CON	MINOT TOWER ★	GND CON	CLNC DEL
278.8	119.6 363.8	120.65 253.5	134.0 275.8	326.2

† Circling not authorized N of Rwy 11-29.







CATEGORY	A	B	C	D	E
S-ILS 11 *	1867/24	200 (200-½)			
S-LOC 11 **	2060/24 393 (400-½)		2060/40 393 (400-¾)		2060/50 393 (400-1)
CIRCLING †	2120-1 453 (500-1)		2120-1½ 453 (500-1½)	2220-2 553 (600-2)	

HIRL Rwy 11-29

LOC FAF to MAP 4.9 NM					
Knots	60	90	120	150	180
Min:Sec	4:54	3:16	2:27	1:58	1:38

NC-1, 08 APR 2010 to 06 MAY 2010

ILS RWY 29

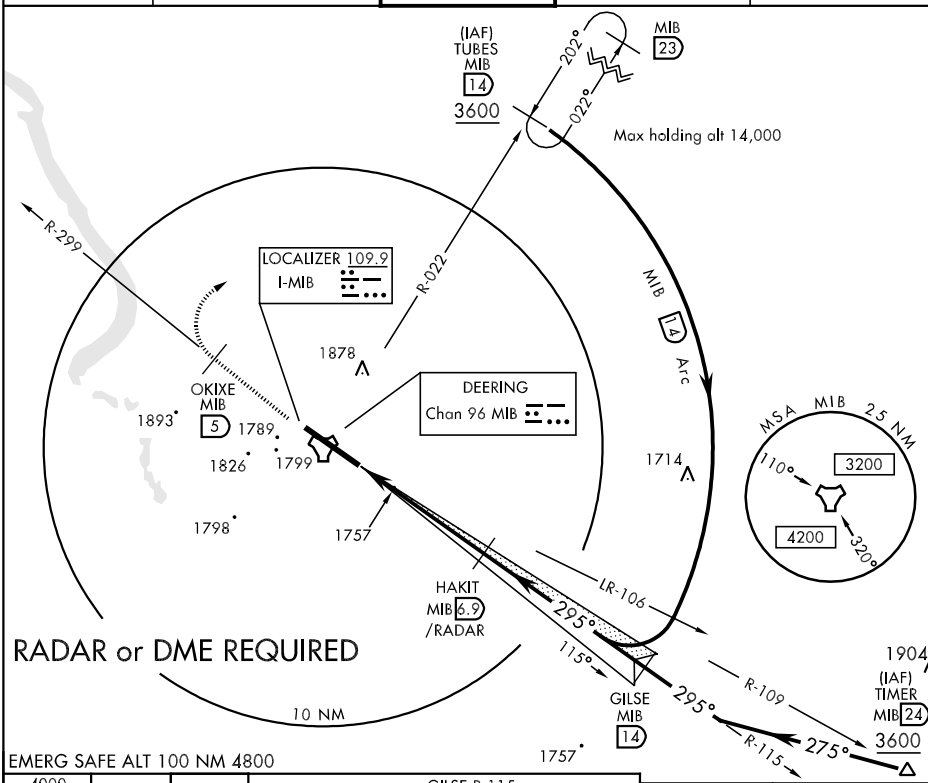
LOC I-MIB	APCH CRS	Rwy ldg 13,197 TDZE 1644 Arpt Elev 1667	AL-5013 [USAF]	MINOT AFB (KMIB)
109.9	295 °			

* When ALS inop, increase RVR to 40 and vis to ¾ mile.
** When ALS inop, increase CAT ABC RVR to 50 and vis to 1 mile, CAT DE RVR to 60 and vis to 1¼ miles.
*** Circling N not authorized.

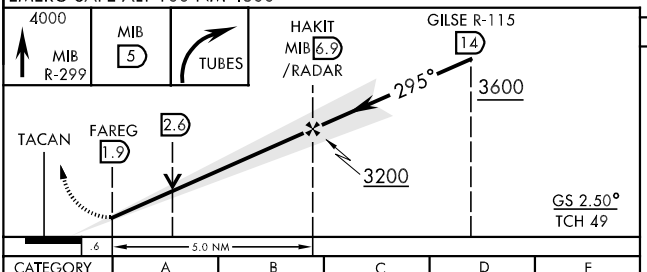
ALSF-1

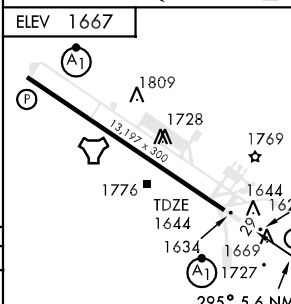
MISSED APPROACH: Climb to 4000 via MIB R-299. At 5 DME turn right direct TUBES and hold.

ATIS ★	MINOT APP CON	MINOT TOWER ★	GND CON	CLNC DEL
278.8	119.6 363.8	120.65 253.5	134.0 275.8	326.2



EMERG SAFE ALT 100 NM 4800





HIRL Rwy 11-29

CATEGORY	A	B	C	D	E
S-ILS 29 *	1844/24	200 (200-½)			
S-LOC 29 **	2020/24 376 (400-½)		2020/40 376 (400-¾)		
CIRCLING***	2120-1 453 (500-1)		2120-1½ 453 (500-1½)	2220-2 553 (600-2)	

LOC FAF to MAP 5.0 NM

Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40

TACAN RWY 11

TACAN MIB Chan 96	APCH CRS 122°	Rwy ldg 13,197 TDZE 1667 Arpt Elev 1667

AL-5013 [USAF]

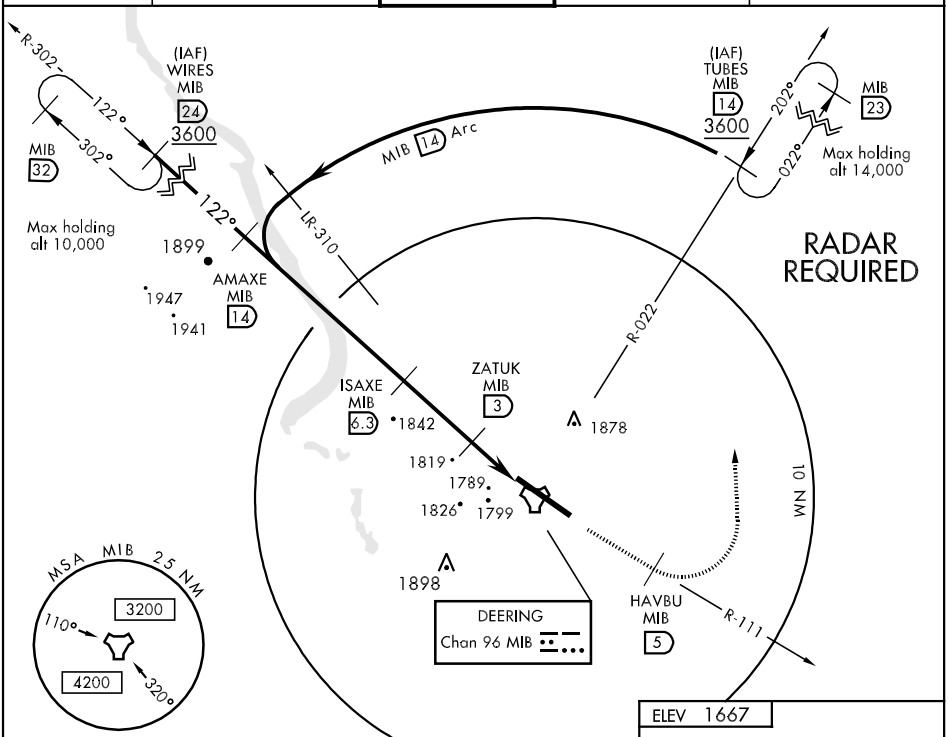
MINOT AFB (KMIB)

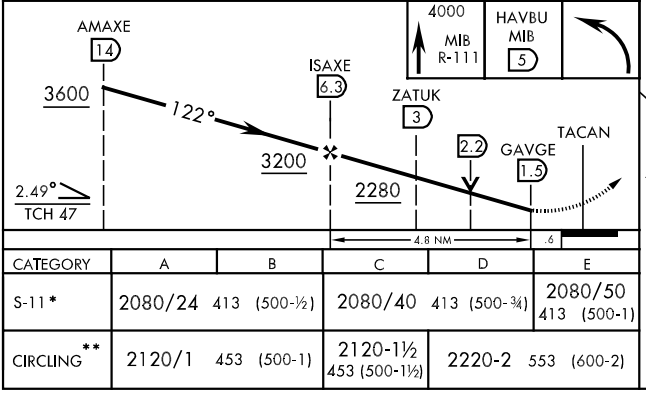
* When ALS inop, increase CAT AB RVR to 50 and vis to 1 mile, CAT CD RVR to 60 and vis to 1¼ miles, CAT E vis to 1½ miles.
** Circling N not authorized.

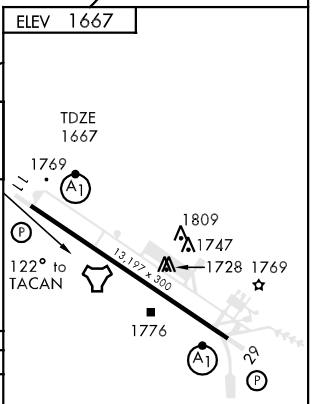
ALSF-1 (A1)

MISSED APPROACH: Climb to 4000 via MIB R-111 at 5 DME turn left direct TUBES and hold.

ATIS ★	MINOT APP CON	MINOT TOWER ★	GND CON	CLNC DEL
278.8	119.6 363.8	120.65 253.5	134.0 275.8	326.2







CATEGORY	A	B	C	D	E
S-11*	2080/24 413 (500-½)		2080/40 413 (500-¾)		2080/50 413 (500-1)
CIRCLING**	2120/1 453 (500-1)		2120-1½ 453 (500-1½)	2220-2 553 (600-2)	

HIRL Rwy 11-29

NC-1, 08 APR 2010 to 06 MAY 2010

TACAN RWY 29

TACAN	APCH CRS	Rwy ldg	13,197
MIB		TDZE	1644
Chan 96	289°	Arpt Elev	1667

AL-5013 [USAF]

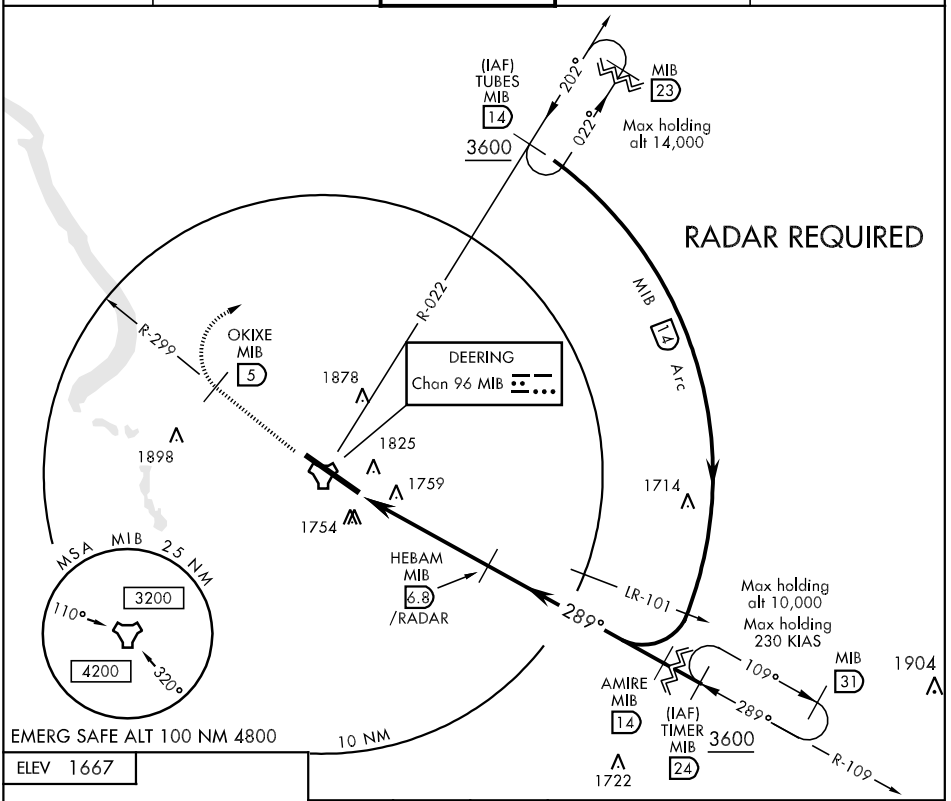
MINOT AFB (KMIB)

* When ALS inop, increase CAT ABC RVR to 50 and vis to 1 mile, CAT D RVR to 60 and vis to 1¼ miles, CAT E vis to 1½ miles.
** Circling N not authorized.

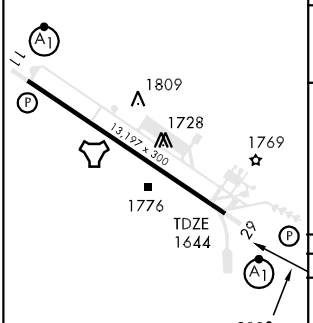
ALSF-1

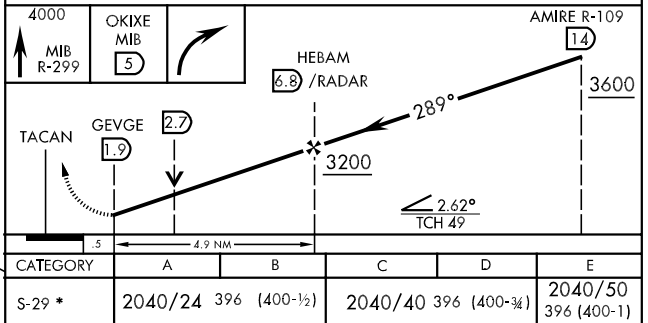
MISSED APPROACH: Climb to 4000 via MIB R-299. At OKIXE turn right direct TUBES and hold.

ATIS ★	MINOT APP CON	MINOT TOWER ★	GND CON	CLNC DEL
278.8	119.6 363.8	120.65 253.5	134.0 275.8	326.2



ELEV 1667





CATEGORY	A	B	C	D	E
S-29 *	2040/24 396 (400-½)		2040/40 396 (400-¾)		2040/50 396 (400-1)
CIRCLING**	2120-1 453 (500-1)		2120-1½ 453 (500-1½)	2220-2 553 (600-2)	

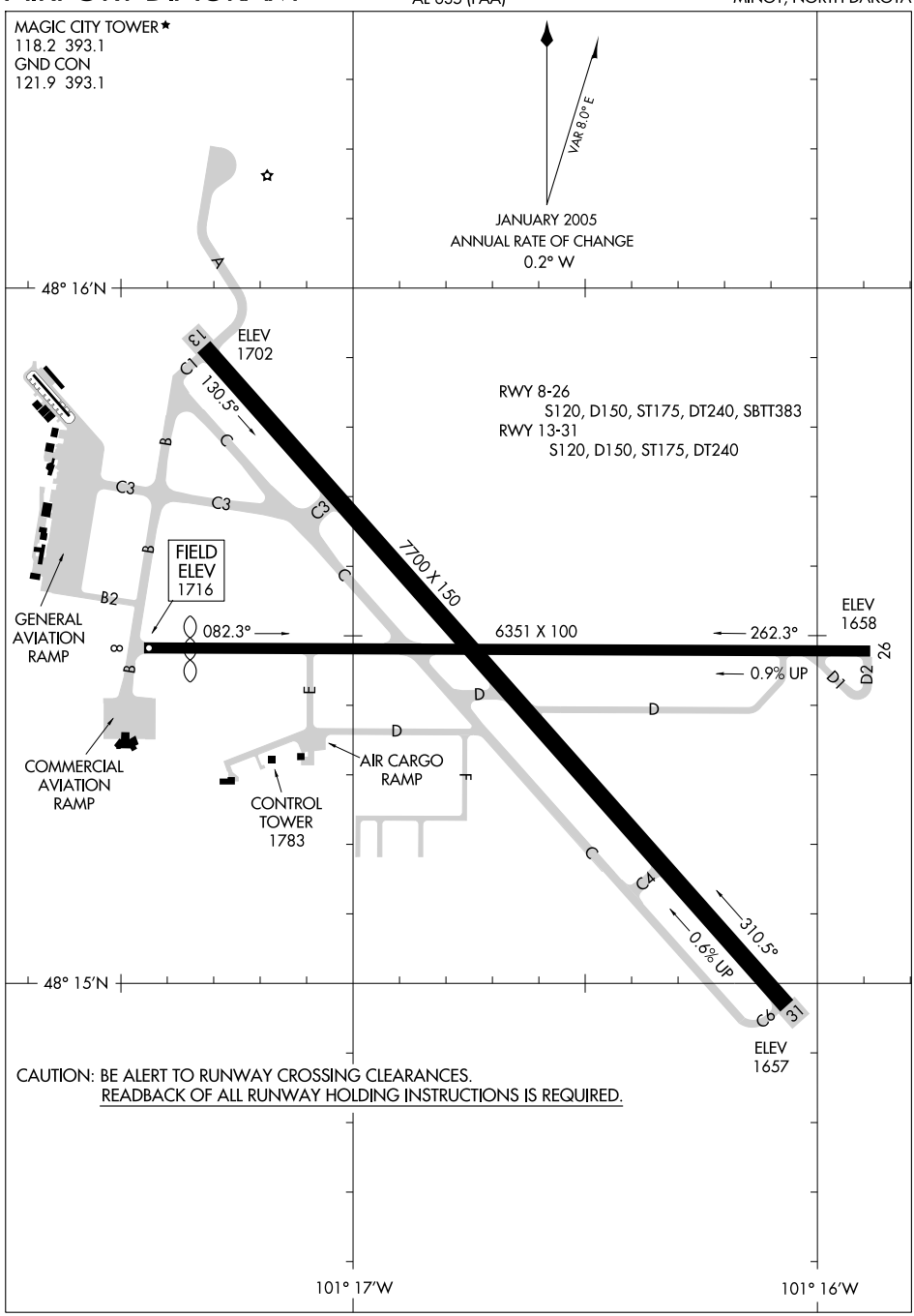
NC-1, 08 APR 2010 to 06 MAY 2010

09015

AIRPORT DIAGRAM

AL-635 (FAA)

MINOT INTL (MOT)
MINOT, NORTH DAKOTA



NC-1, 08 APR 2010 to 06 MAY 2010

LOC/DME I-MOT	APP CRS	Rwy Idg	7700
111.9	308°	TDZE	1673
Chan 56		Apt Elev	1716

ILS or LOC RWY 31

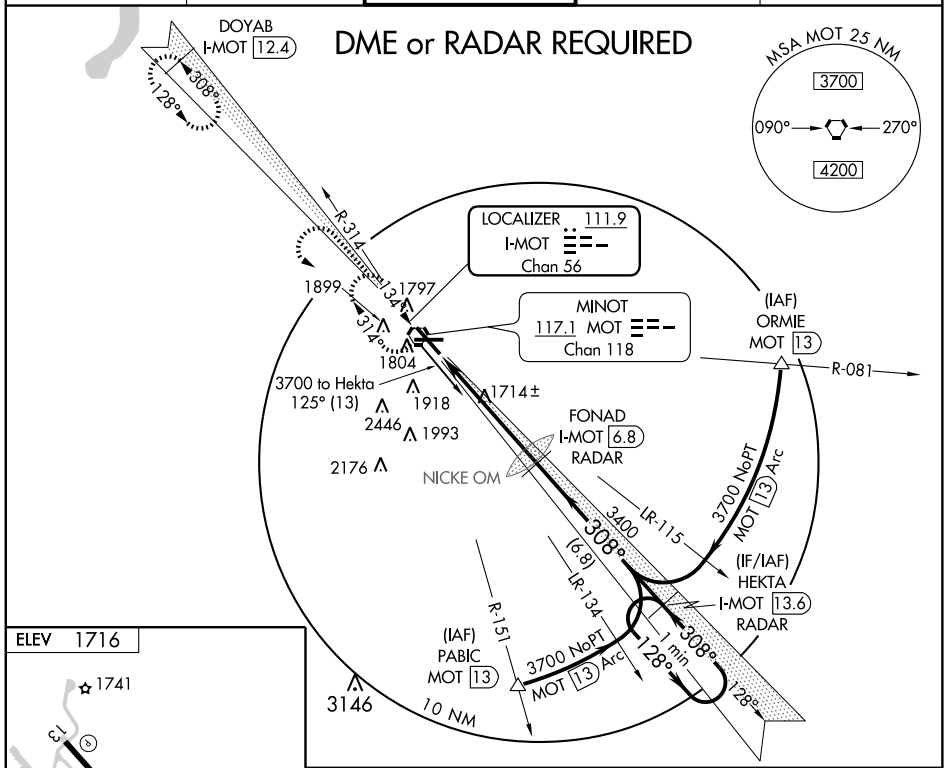
MINOT INTL (MOT)

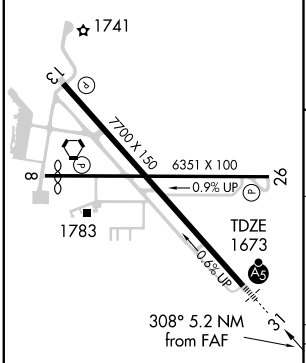
If local altimeter setting not received use Minot AFB altimeter setting and increase all DAs/MDAs 40 feet. VDP NA when using Minot AFB altimeter setting. DME or RADAR required. For inoperative MALSR increase S-ILS 31 Cat E visibility to RVR 4000, and S-LOC 31 Cats D and E visibility to RVR 5000.
* RVR 1800 authorized with the use of FD or AP or HUD to DA.

MALSR

MISSED APPROACH: Climb to 3700 then left turn direct MOT VORTAC and hold.

ASOS	MINOT APP CON *	MAGIC CITY TOWER *	GND CON	UNICOM
118.725	119.6 363.8	118.2 (CTAF) L 393.1	121.9 393.1	122.95

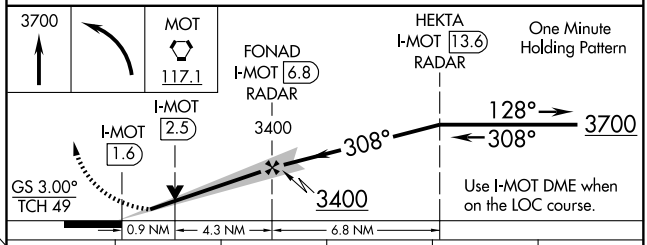




REIL Rwy 8 and 26 L
HIRL Rwys 8-26 and 13-31 L

FAF to MAP 5.2 NM

Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44



CATEGORY	A	B	C	D	E
S-ILS 31	* 1873/24 200 (200-½)				
S-LOC 31	1980/24 307 (300-½)			1980/40 307 (300-¾)	
CIRCLING	2200-1 484 (500-1)		2280-1½ 564 (600-1½)	2280-2 564 (600-2)	2800-3 1084 (1100-3)

NC-1. 08 APR 2010 to 06 MAY 2010

LOC/DME I-MOT	APP CRS	Rwy Idg	7700
111.9	128°	TDZE	1702
Chan 56		Apt Elev	1716

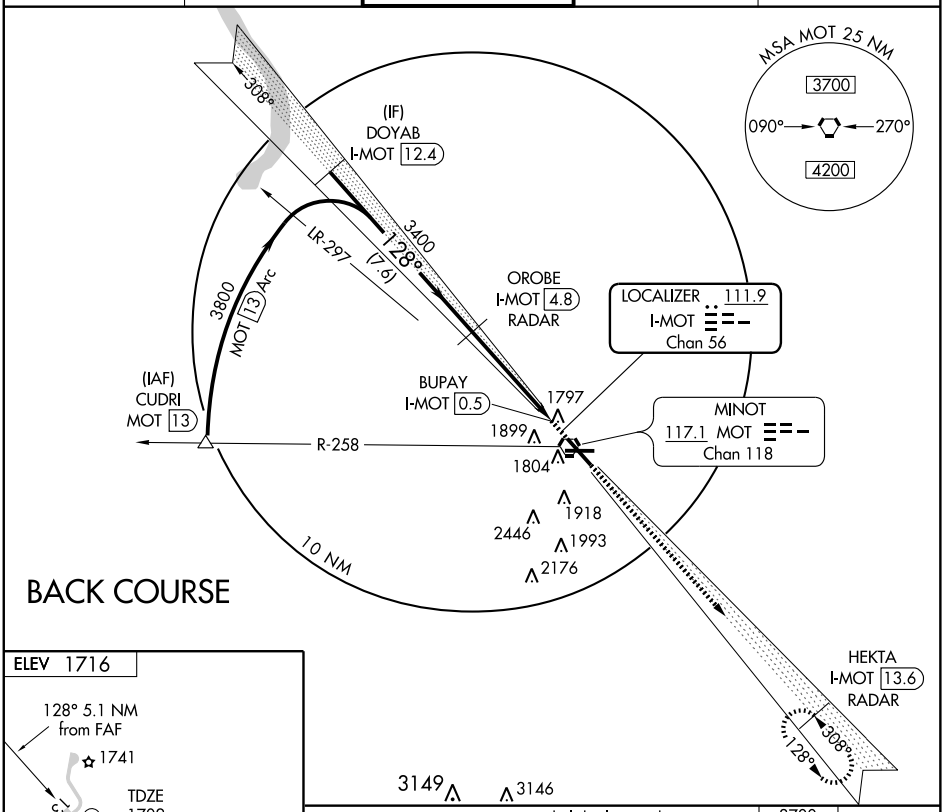
LOC/DME BC RWY 13

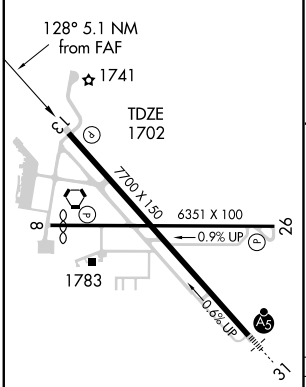
MINOT INTL (MOT)

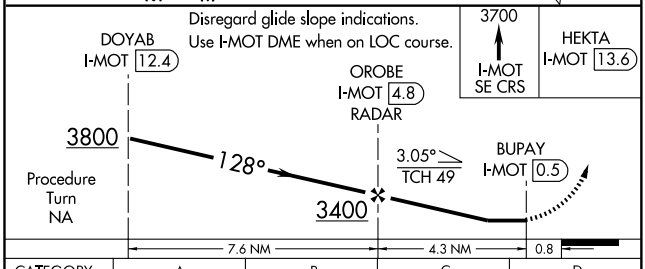
If local altimeter not received use Minot AFB altimeter setting and increase all MDAs 40 feet.

MISSED APPROACH: Climb to 3700 via I-MOT LOC SE course to HEKTA/I-MOT 13.6 DME/RADAR and hold.

ASOS	MINOT APP CON ★	MAGIC CITY TOWER ★	GND CON	UNICOM
118.725	119.6 363.8	118.2 (CTAF) L 393.1	121.9 393.1	122.95







CATEGORY	A	B	C	D
S-13	2060-1 358 (400-1)			2060-1¼ 358 (400-1¼)
CIRCLING	2200-1 484 (500-1)		2280-1½ 564 (600-1½)	2280-2 564 (600-2)

REIL Rwy 8 and 26 L
HIRL Rwys 8-26 and 13-31 L

NC-1. 08 APR 2010 to 06 MAY 2010

WAAS Chan **97616** **W08A**	APP CRS **080°**	Rwy Idg **5958** TDZE **1712** Apt Elev **1716**

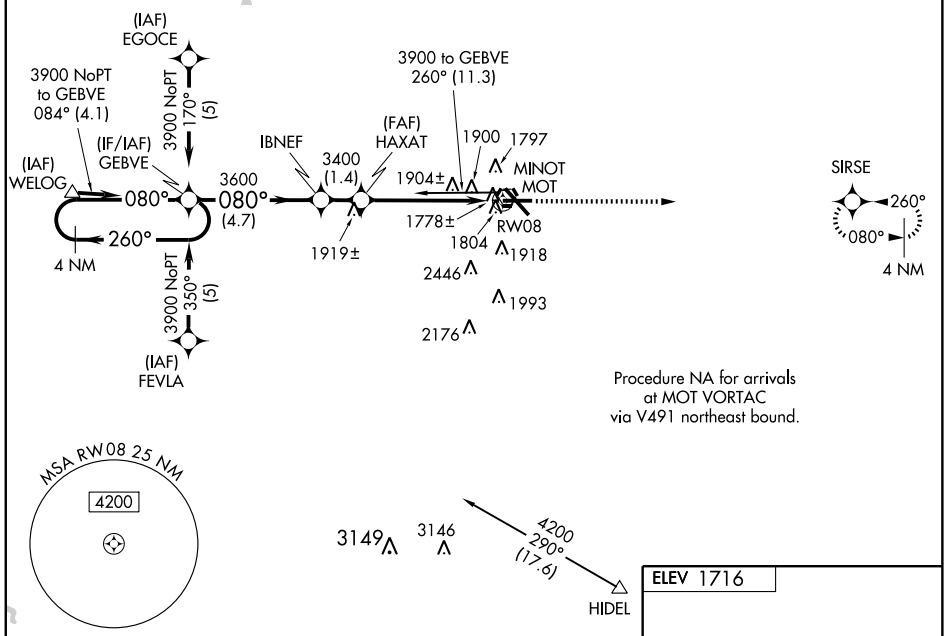
RNAV (GPS) RWY 8
MINOT INTL (MOT)

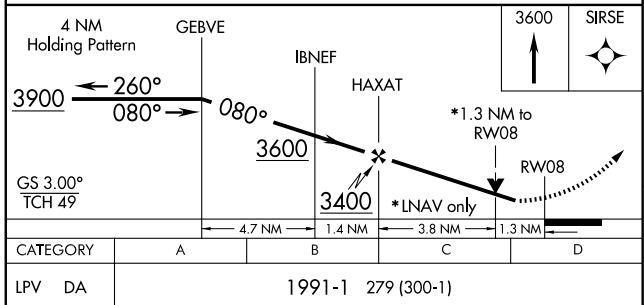
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -18°C (0°F) or above 45°C (113°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. Baro-VNAV NA when using Minot AFB altimeter setting. VDP NA with Minot AFB altimeter setting. When local altimeter setting not received, use Minot AFB altimeter setting and increase all DA 30 feet and all MDA 40 feet; increase LNAV/VNAV all Cats visibility ¼ mile and Circling Cat C visibility ¼ mile.

MISSED APPROACH: Climb to 3600 direct SIRSE and hold.

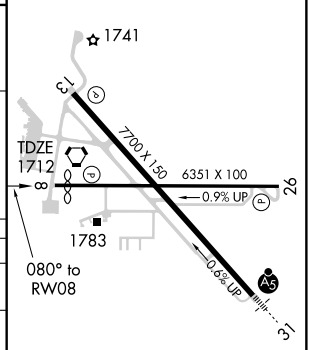
ASOS	MINOT APP CON ★	MAGIC CITY TOWER ★	GND CON	UNICOM
118.725	**119.6 363.8**	**118.2** (CTAF) (L) **393.1**	**121.9 393.1**	**122.95**

RADAR required for procedure entry at EGOCE.





CATEGORY	A	B	C	D
LPV DA	1991-1 279 (300-1)			
LNAV/VNAV DA	2218-1¾ 506 (600-1¾)			
LNAV MDA	2160-1 448 (500-1)		2160-1¼ 448 (500-1¼)	2160-1½ 448 (500-1½)
CIRCLING	2200-1 484 (500-1)		2280-1½ 564 (600-1½)	2280-2 564 (600-2)



REIL Rwy 8 and 26 (L)
HIRL Rwys 8-26 and 13-31 (L)

NC-1. 08 APR 2010 to 06 MAY 2010

WAAS Chan **70399** W13A	APP CRS **128°**	Rwy Idg **7700** TDZE **1702** Apt Elev **1716**

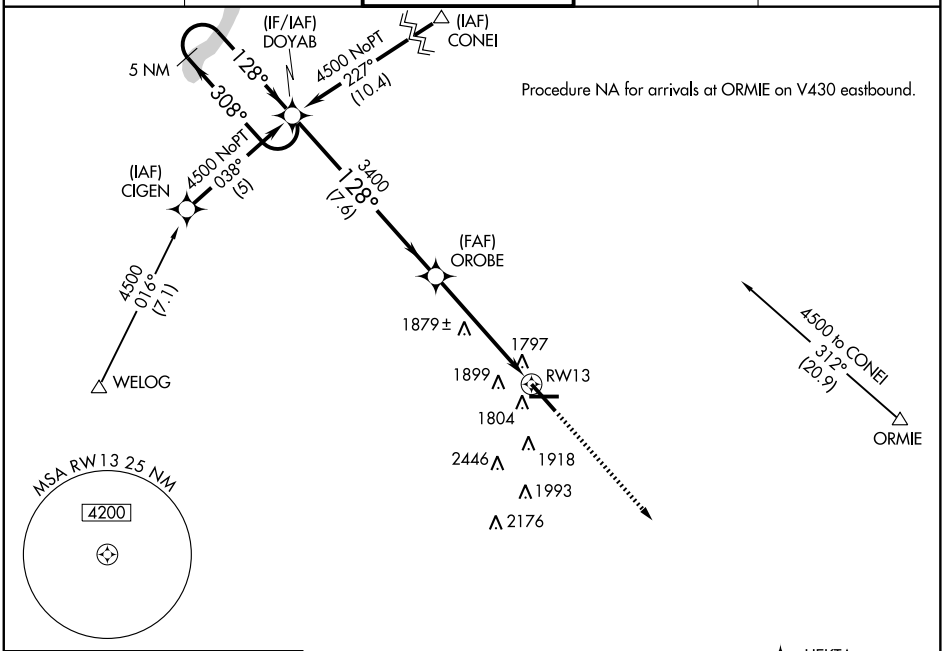
RNAV (GPS) RWY 13

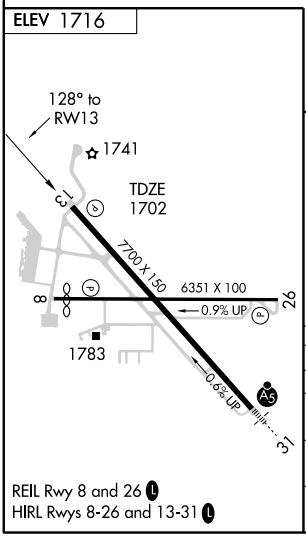
MINOT INTL (MOT)

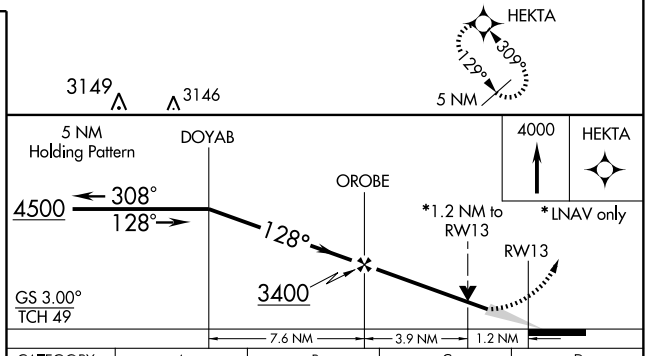
If local altimeter not received, use Minot AFB altimeter setting and increase all DAs/MDAs 40 feet. Baro-VNAV NA below -18°C (0°F). VDP and Baro-VNAV NA when using Minot AFB altimeter setting. DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 4000 direct HEKTA and hold.

ASOS	MINOT APP CON ★	MAGIC CITY TOWER ★	GND CON	UNICOM
118.725	**119.6 363.8**	**118.2** (CTAF) L **393.1**	**121.9 393.1**	**122.95**







CATEGORY	A	B	C	D
LPV DA	2021-1 319 (400-1)			
LNAV/ VNAV DA	2164-1½ 462 (500-1½)			
LNAV MDA	2140-1 438 (500-1)		2140-1¼ 438 (500-1¼)	2140-1½ 438 (500-1½)
CIRCLING	2200-1½ 484 (500-1½)		2280-1½ 564 (600-1½)	2280-2 564 (600-2)

REIL Rwy 8 and 26 L
HIRL Rwys 8-26 and 13-31 L

NC-1. 08 APR 2010 to 06 MAY 2010

WAAS Chan **56516** **W26A**	APP CRS **260°**	Rwy Idg **6351** TDZE **1682** Apt Elev **1716**

RNAV (GPS) RWY 26

MINOT INTL (MOT)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -18°C (0°F) or above 45°C (113°F). DME/DME RNP-0.3 NA. Baro-VNAV NA when using Minot AFB altimeter setting. VDP NA with Minot AFB altimeter setting. When local altimeter setting not received, use Minot AFB altimeter setting and increase all DA 30 feet and all MDA 40 feet; increase Circling Cat C visibility ¼ mile.

MISSED APPROACH: Climb to 3900 direct GEBVE and hold.

ASOS	MINOT APP CON ★	MAGIC CITY TOWER ★	GND CON	UNICOM
118.725	**119.6 363.8**	**118.2** (CTAF) **L 393.1**	**121.9 393.1**	**122.95**

MISSED APCH FIX

GEBVE
080°
260°
4 NM

RADAR required for procedure entry at UCARI.

(IAF) UCARI
3600 NoPT 170° (5)
(IF/IAF) SIRSE
3600 to SIRSE 081° (12.2)
(FAF) REMRE
3400
260° (6.1)
260°
080°
4 NM
3600 NoPT 266° (37.7)
(IAF) BALTA
3600 NoPT 350° (5)
(IAF) TIZTO
MINOT MOT
RW26
1797
1899
1804
1789±
1918
2446
1993
2176
3149
3146
3600 034° (12)
HIDEL

MSA RW26 25 NM
4200

ELEV 1716

1741
13
260° to RW26
7700 X 150
6351 X 100
0.9% UP
0.6% UP
8
26
31
TDZE 1682
1783

3900
GEBVE
*LNAV only
*1 NM to RW26
RW26
REMRE
SIRSE
4 NM Holding Pattern
260°
080°
260°
3600
3400
GS 3.00°
TCH 50
1 NM
4.2 NM
6.1 NM

CATEGORY	A	B	C	D
LPV DA	1932-1 250 (300-1)			
LNAV/VNAV DA	1932-1 250 (300-1)			
LNAV MDA	2040-1 358 (400-1)			2040-1¼ 358 (400-1¼)
CIRCLING	2200-1 484 (500-1)		2280-1½ 564 (600-1½)	2280-2 564 (600-2)

REIL Rwy 8 and 26 L
HIRL Rwys 8-26 and 13-31 L

NC-1. 08 APR 2010 to 06 MAY 2010

WAAS Chan 66099 W31A	APP CRS 308°	Rwy Idg 7700	TDZE 1673	Apt Elev 1716

RNAV (GPS) RWY 31

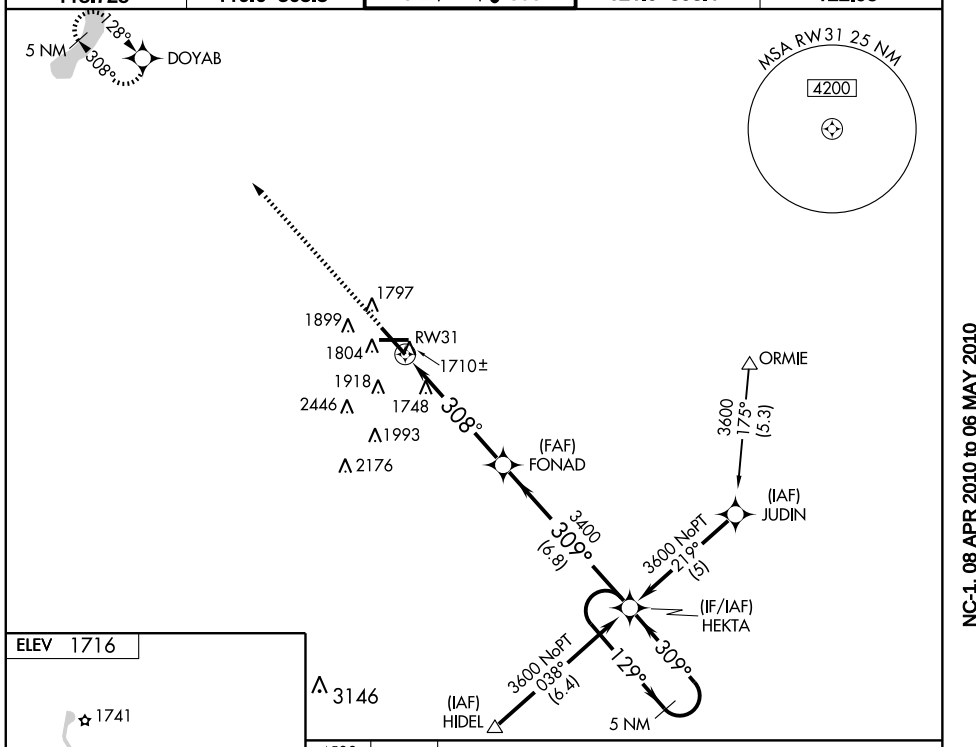
MINOT INTL (MOT)

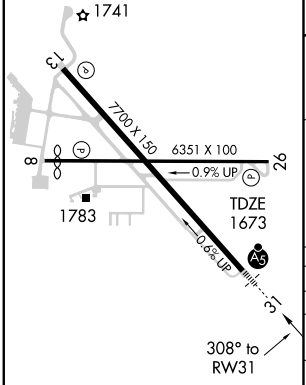
▼ If local altimeter setting not received use Minot AFB altimeter setting and increase all DAs/MDAs 40 feet. Baro-VNAV NA below -18°C (0°F). VDP and Baro-VNAV NA when using Minot AFB altimeter setting. For inoperative MALSR increase LPV visibility to RVR 5000 all Cats, LNAV/VNAV Cat D visibility to RVR 5000. Inoperative table does not apply to LNAV Cat D. DME/DME RNP-0.3 NA.

MALSR

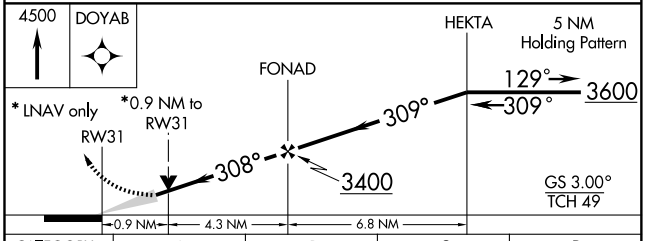
MISSED APPROACH: Climb to 4500 direct DOYAB and hold.

ASOS	MINOT APP CON ★	MAGIC CITY TOWER ★	GND CON	UNICOM
118.725	119.6 363.8	118.2 (CTAF) L 393.1	121.9 393.1	122.95





REIL Rwy 8 and 26 L
HIRL Rwys 8-26 and 13-31 L



CATEGORY	A	B	C	D
LPV DA	1923/24 250 (300-½)			
LNAV/VNAV DA	1960/24 287 (300-½)			1960/40 287 (300-¾)
LNAV MDA	2000/24 327 (300-½)			2000/50 327 (300-1)
CIRCLING	2200-1 484 (500-1)		2280-1½ 564 (600-1½)	2280-2 564 (600-2)

NC-1. 08 APR 2010 to 06 MAY 2010

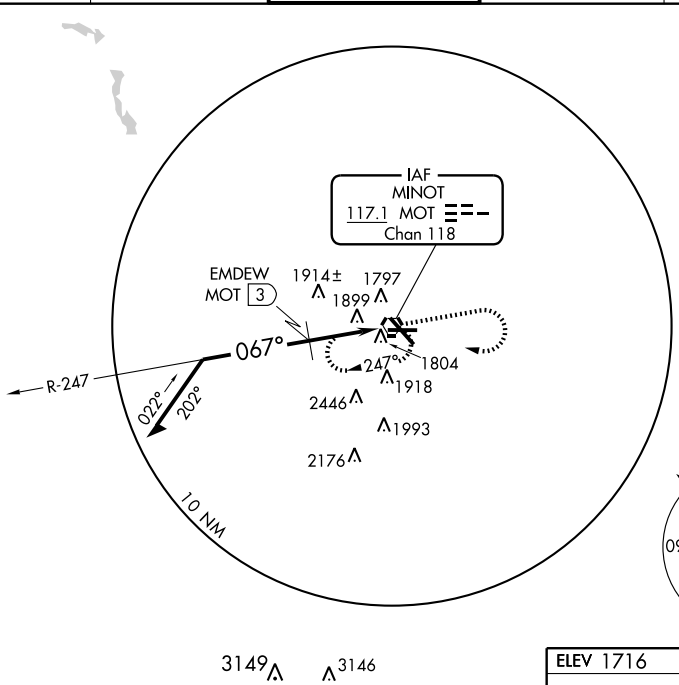
VORTAC MOT	APP CRS		
117.1	067°	Rwy Idg	5958
Chan 118		TDZE	1712
		Apt Elev	1716

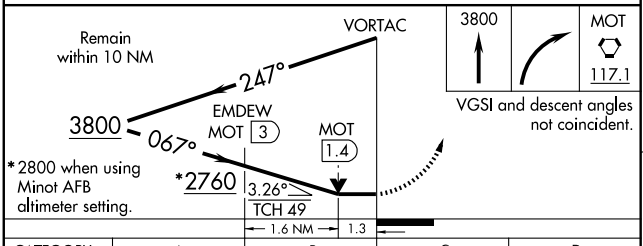
VOR RWY 8
MINOT INTL (MOT)

VDP NA with Minot AFB altimeter setting. When local altimeter setting not received, use Minot AFB altimeter setting and increase all MDA 40 feet; EMDEW FIX minimums increase S-8 and Circling Cat C visibility ¼ mile.

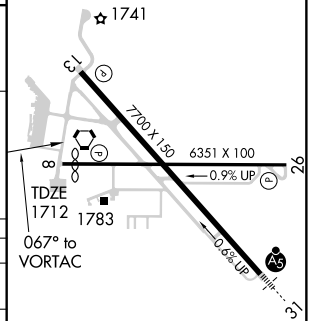
MISSED APPROACH: Climb to 3800 then right turn direct MOT VORTAC and hold.

ASOS	MINOT APP CON ★	MAGIC CITY TOWER ★	GND CON	UNICOM
118.725	119.6 363.8	118.2 (CTAF) L 393.1	121.9 393.1	122.95





CATEGORY	A	B	C	D
S-8	2760-1¼ 1048 (1100-1¼)	2760-1½ 1048 (1100-1½)	2760-3 1048 (1100-3)	
CIRCLING	2760-1¼ 1044 (1100-1¼)	2760-1½ 1044 (1100-1½)	2760-3 1044 (1100-3)	
EMDEW FIX MINIMUMS				
S-8	2180-1 468 (500-1)		2180-1¼ 468 (500-1¼)	2180-1½ 468 (500-1½)
CIRCLING	2200-1 484 (500-1)		2280-1½ 564 (600-1½)	2280-2 564 (600-2)



REIL Rwy 8 and 26 L
HIRL Rwys 8-26 and 13-31 L

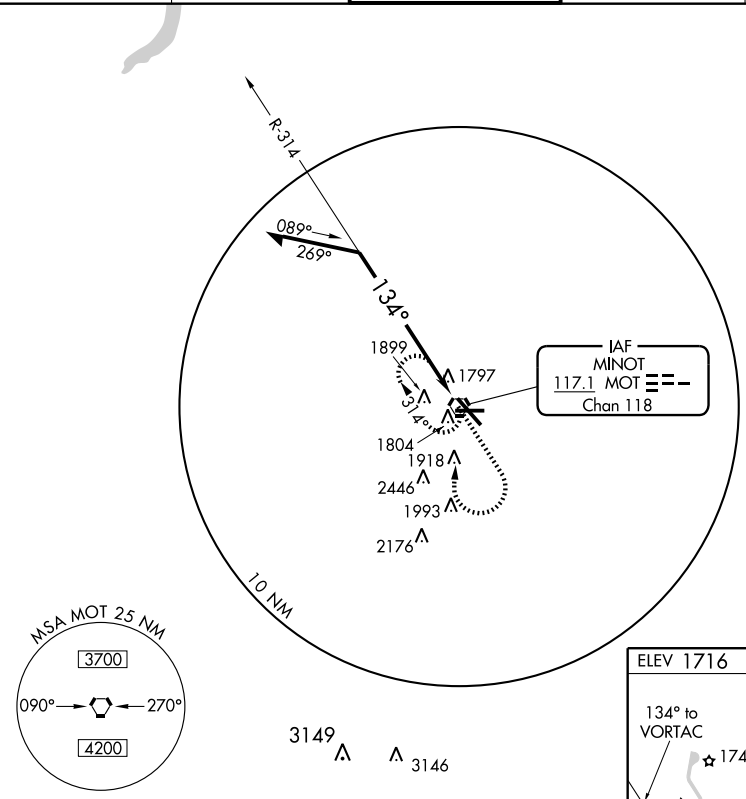
NC-1. 08 APR 2010 to 06 MAY 2010

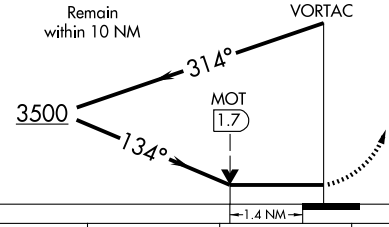
VORTAC MOT	APP CRS	Rwy Idg	7700
117.1	134°	TDZE	1702
Chan 118		Apt Elev	1716

VOR RWY 13
MINOT INTL (MOT)

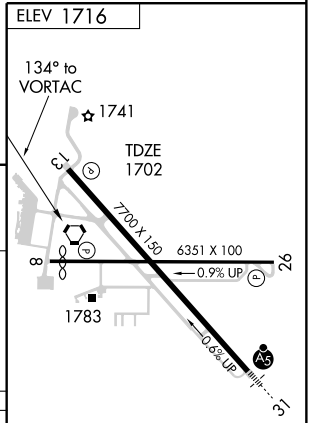
MISSED APPROACH: Climb to 3500 then right turn direct MOT VORTAC and hold.

ASOS	MINOT APP CON ★	MAGIC CITY TOWER ★	GND CON	UNICOM
118.725	119.6 363.8	118.2 (CTAF) L 393.1	121.9 393.1	122.95





3500		MOT 117.1



CATEGORY	A	B	C	D
S-13	2200-1	498 (500-1)	2200-1¼ 498 (500-1¼)	2200-1½ 498 (500-1½)
CIRCLING	2200-1	484 (500-1)	2280-1½ 564 (600-1½)	2280-2 564 (600-2)

REIL Rwy 8 and 26 L
HIRL Rwys 8-26 and 13-31 L

NC-1. 08 APR 2010 to 06 MAY 2010

VOR RWY 26

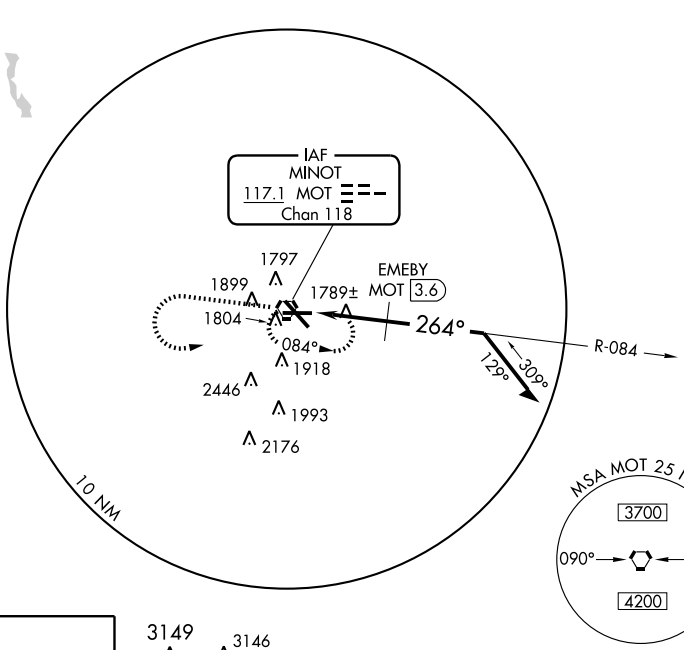
MINOT INTL (MOT)

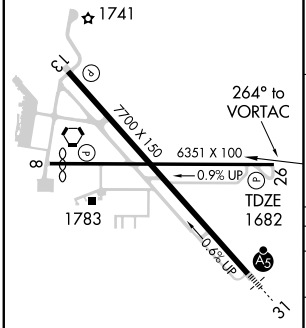
VORTAC MOT 117.1 Chan 118	APP CRS 264°	Rwy Idg 6351 TDZE 1682 Apt Elev 1716

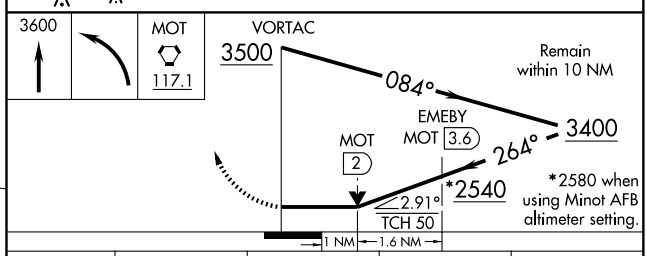
VDP NA with Minot AFB altimeter setting. When local altimeter setting not received, use Minot AFB altimeter setting and increase all MDA 40 feet; increase S-26 and Circling Cats A/C/D visibility ¼ mile, and EMEBY FIX minimums Circling Cat C visibility ¼ mile.

MISSED APPROACH: Climb to 3600 then left turn direct MOT VORTAC and hold.

ASOS	MINOT APP CON ★	MAGIC CITY TOWER ★	GND CON	UNICOM
118.725	119.6 363.8	118.2 (CTAF) Ⓛ 393.1	121.9 393.1	122.95







CATEGORY	A	B	C	D
S-26	2540-1 858 (900-1)	2540-1¼ 858 (900-1¼)	2540-2½ 858 (900-1½)	2540-2¾ 858 (900-2¾)
CIRCLING	2540-1 824 (900-1)	2540-1¼ 824 (900-1¼)	2540-2½ 824 (900-1½)	2540-2¾ 824 (900-2¾)
EMEBY FIX MINIMUMS				
S-26	2040-1 358 (400-1)			2040-1¼ 358 (400-1¼)
CIRCLING	2200-1 484 (500-1)		2280-1½ 564 (600-1½)	2280-2 564 (600-2)

REIL Rwy 8 and 26 Ⓛ
HIRL Rwys 8-26 and 13-31 Ⓛ

NC-1. 08 APR 2010 to 06 MAY 2010

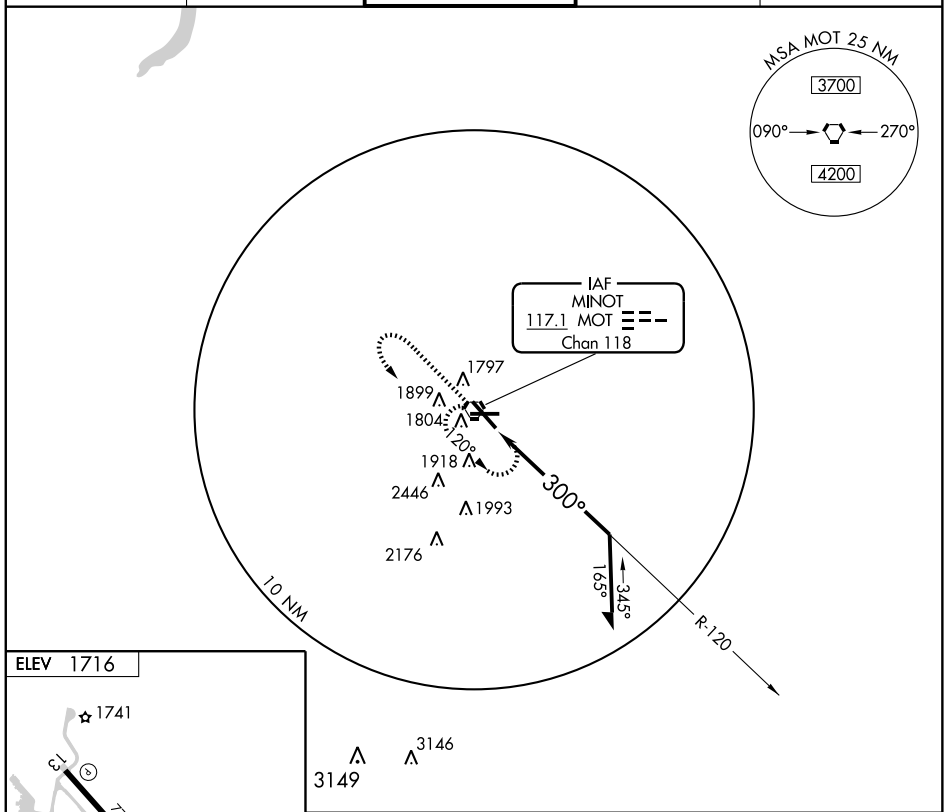
VORTAC MOT	APP CRS	Rwy Idg	7700
117.1	300°	TDZE	1673
Chan 118		Apt Elev	1716

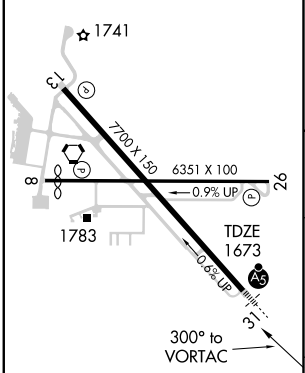
VOR RWY 31
MINOT INTL (MOT)

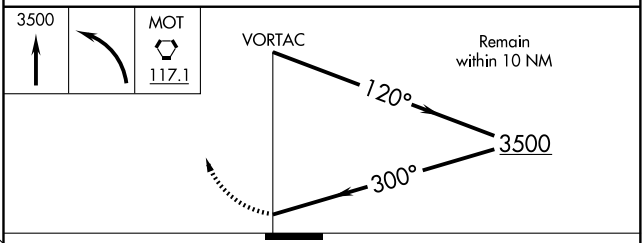
MALSR

MISSED APPROACH: Climb to 3500 then left turn direct MOT VORTAC and hold.

ASOS	MINOT APP CON ★	MAGIC CITY TOWER ★	GND CON	UNICOM
118.725	119.6 363.8	118.2 (CTAF) L 393.1	121.9 393.1	122.95







CATEGORY	A	B	C	D
S-31	2200/24	527 (500-½)	2200/50 527 (500-1)	2200/60 527 (500-1¼)
CIRCLING	2200-1	484 (500-1)	2280-1½ 564 (600-1½)	2280-2 564 (600-2)

REIL Rwy 8 and 26 L
HIRL Rwys 8-26 and 13-31 L

NC-1. 08 APR 2010 to 06 MAY 2010

MOHALL, NORTH DAKOTA

AL-6052 (FAA)

RNAV (GPS) RWY 31

MOHALL MUNI (HBC)

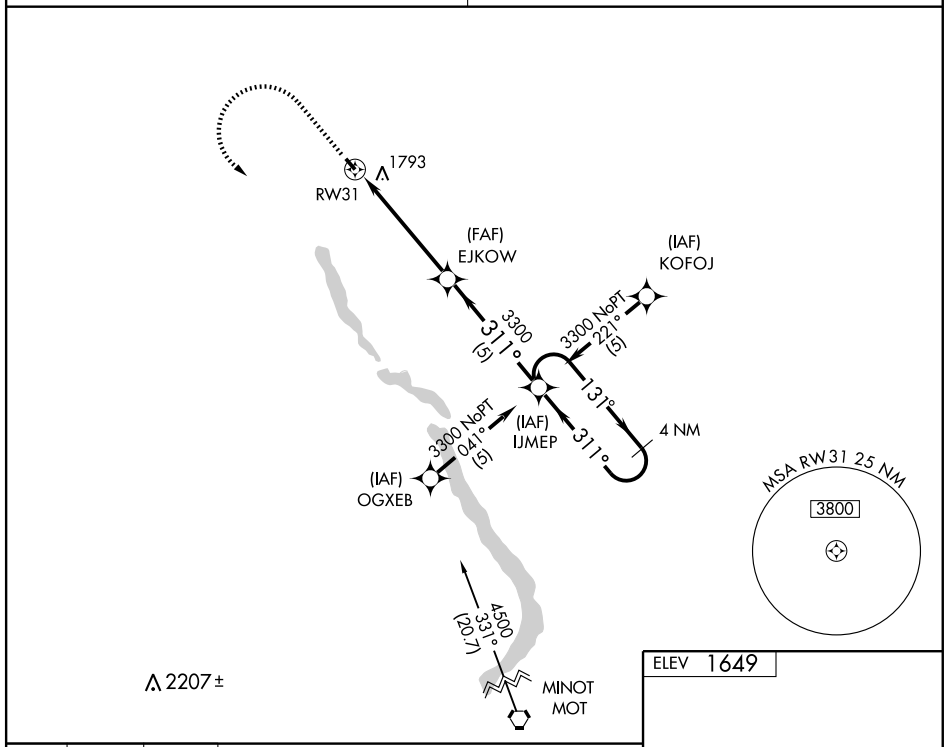
APP CRS	Rwy Idg	3121
311°	TDZE	1649
	Apt Elev	1649

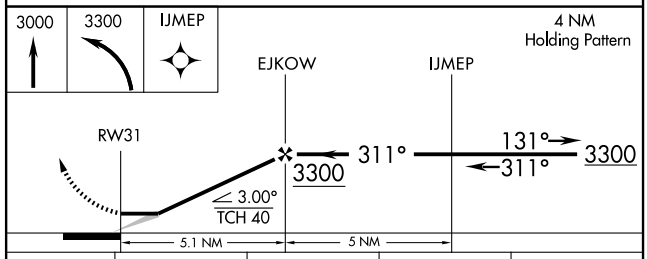
NA Use Minot Intl altimeter setting.
GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.

MISSED APPROACH: Climb to 3000 then climbing left turn to 3300 direct IJMEP WP and hold.

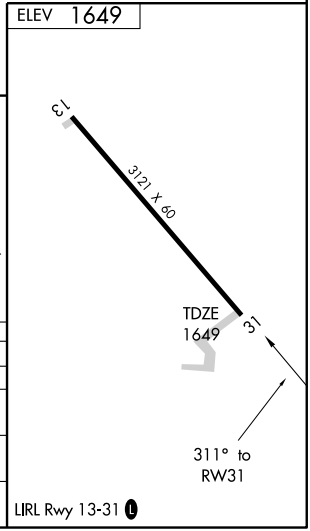
MINOT APP CON ★
119.6 363.8

UNICOM
122.8 (CTAF) L





CATEGORY	A	B	C	D
GLS DA	NA			
LNAV/VNAV DA	NA			
LNAV MDA	2180-1 531 (600-1)		2180-1½ 531 (600-1½)	NA
CIRCLING	2240-1 591 (600-1)		2240-1½ 591 (600-1½)	NA



NC-1. 08 APR 2010 to 06 MAY 2010

MOHALL, NORTH DAKOTA

AL-6052 (FAA)

VORTAC MOT	APP CRS	Rwy Idg	3121
117.1	329°	TDZE	1649
Chan 118		Apt Elev	1649

VOR/DME RWY 31

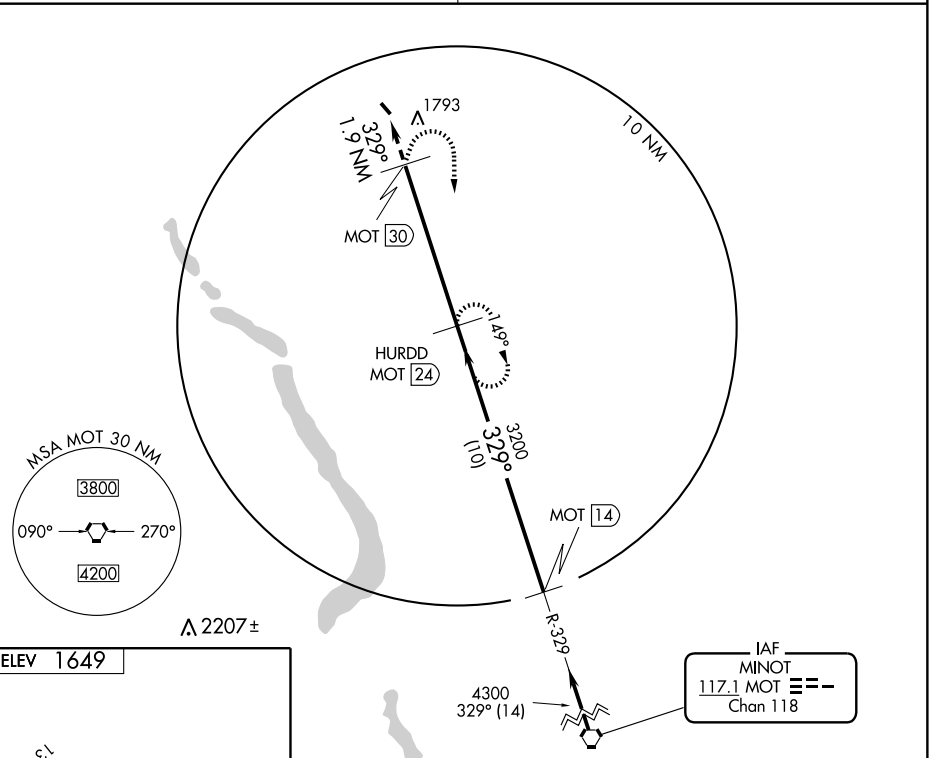
MOHALL MUNI (HBC)

NA Use Minot Intl altimeter setting.

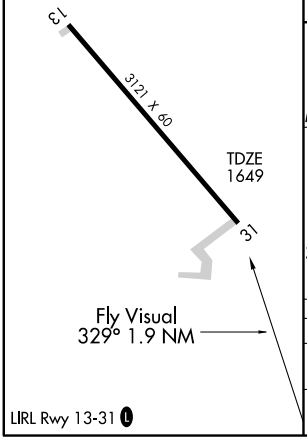
MISSED APPROACH: Climbing right turn to 3200 via MOT R-329 to HURDD 24 DME and hold.

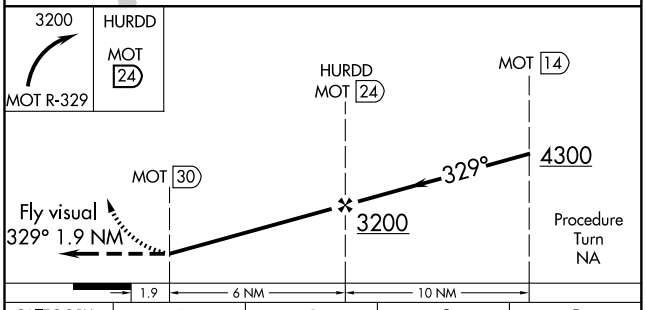
MINOT APP CON * 119.6 363.8

UNICOM 122.8 (CTAF) L



ELEV 1649





CATEGORY	A	B	C	D
S-31	2800-2	1151 (1200-2)	2800-3 1151 (1200-3)	NA
CIRCLING	2800-2	1151 (1200-2)	2800-3 1151 (1200-3)	NA

LIRL Rwy 13-31 L

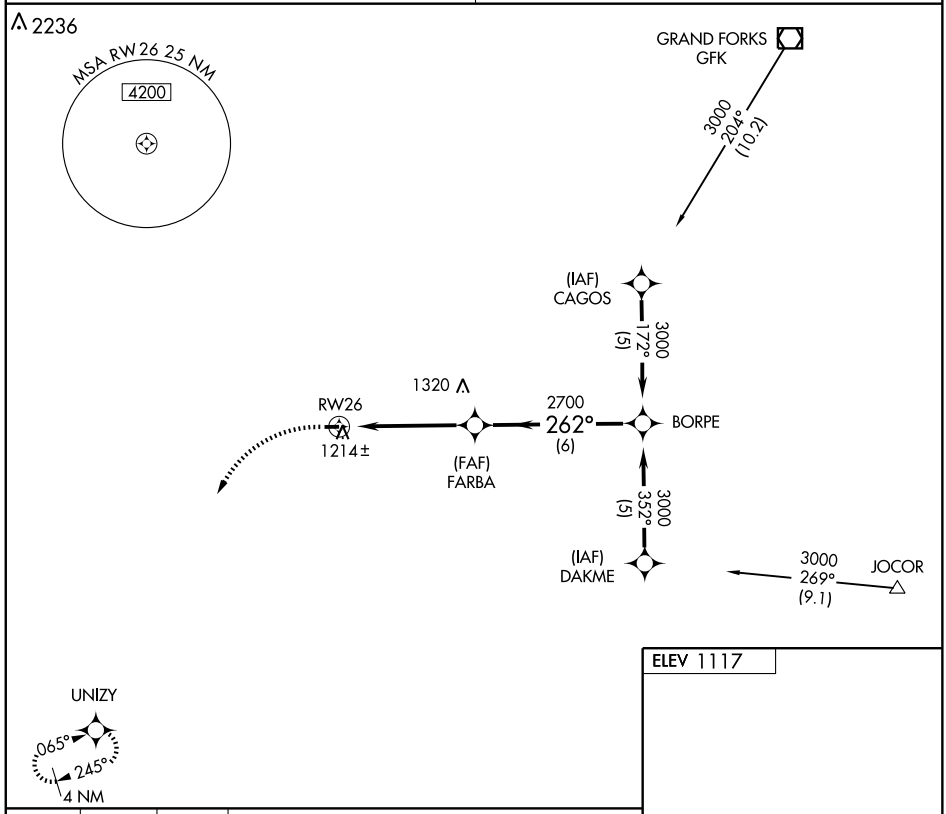
NC-1. 08 APR 2010 to 06 MAY 2010

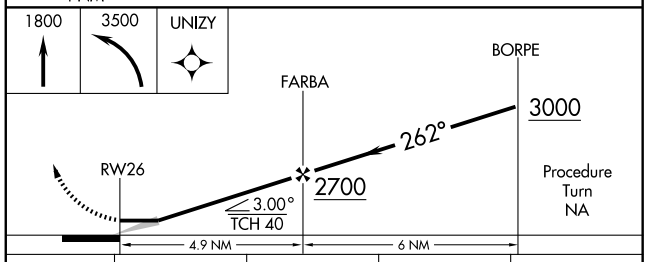
APP CRS		
262°	Rwy Idg	3160
	TDZE	1117
	Apt Elev	1117

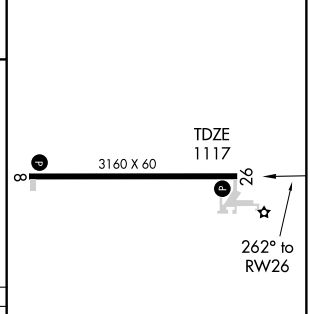
RNAV (GPS) RWY 26

NORTHWOOD MUNI-VINCE FIELD (4V4)

NA DME/DME RNP- 0.3 NA. Use Grand Forks Intl altimeter setting. Procedure NA at night.	MISSED APPROACH: Climb to 1800 then climbing left turn to 3500 direct UNIZY WP and hold.
GRAND FORKS APP CON **118.1 318.1**	UNICOM **122.8** (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1660-1	543 (600-1)	NA	
CIRCLING	1720-1	603 (700-1)	NA	

MIRL Rwy 8-26 L

NC-1. 08 APR 2010 to 06 MAY 2010

APP CRS		
305°	Rwy Idg	3505
	TDZE	1335
	Apt Elev	1335

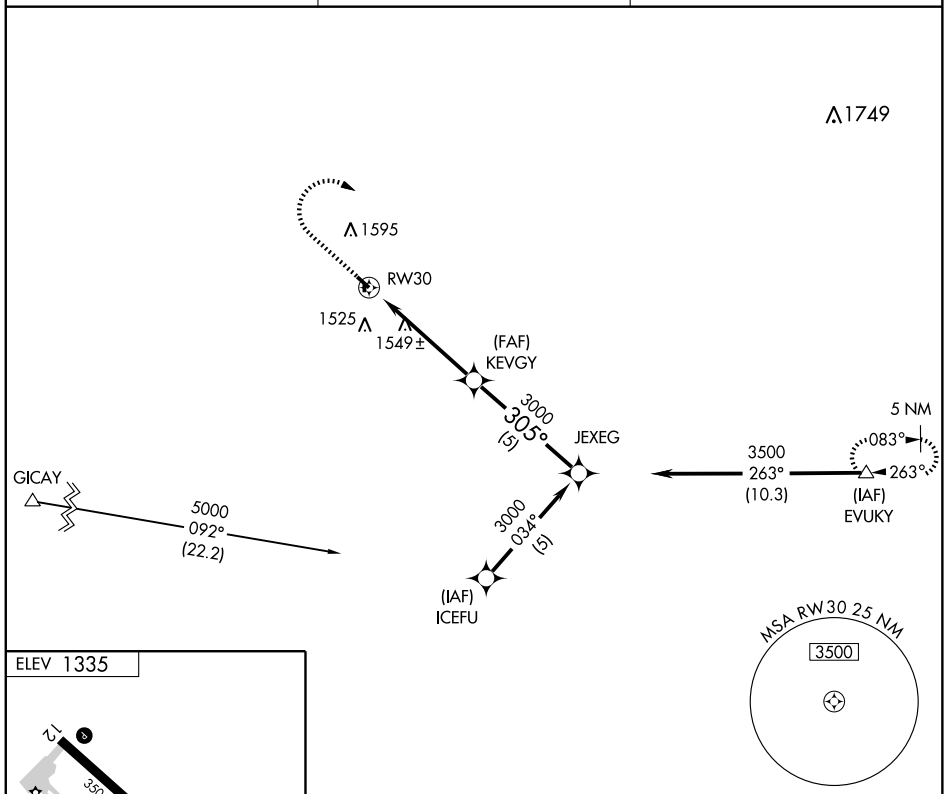
GPS RWY 30
OAKES MUNI (2D5)

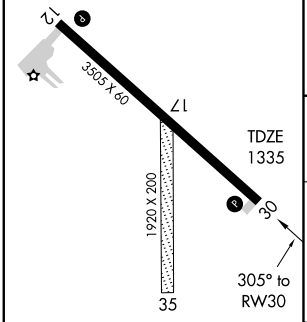
NA

Use Aberdeen altimeter setting.

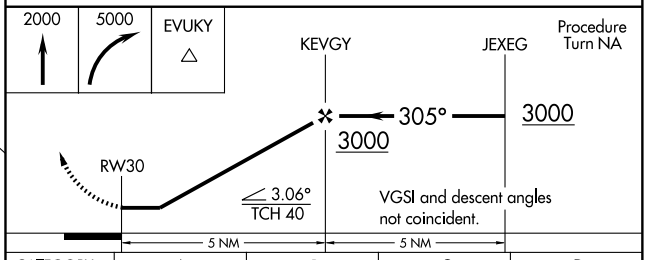
MISSED APPROACH: Climb to 2000 then climbing right turn to 5000 direct EVUKY WP and hold.

AWOS-3	MINNEAPOLIS CENTER	CTAF
118.675	124.2 270.3	122.9 (L)





MIRL Rwy 12-30 (L)



CATEGORY	A	B	C	D
S-30	1920-1	585 (600-1)	1920-1½ 585 (600-1½)	NA
CIRCLING	1920-1	585 (600-1)	2020-2 685 (700-2)	NA

NC-1. 08 APR 2010 to 06 MAY 2010

VORTAC HML	APP CRS	Rwy Idg	3800
112.4	301°	TDZE	795
Chan 71		Apt Elev	795

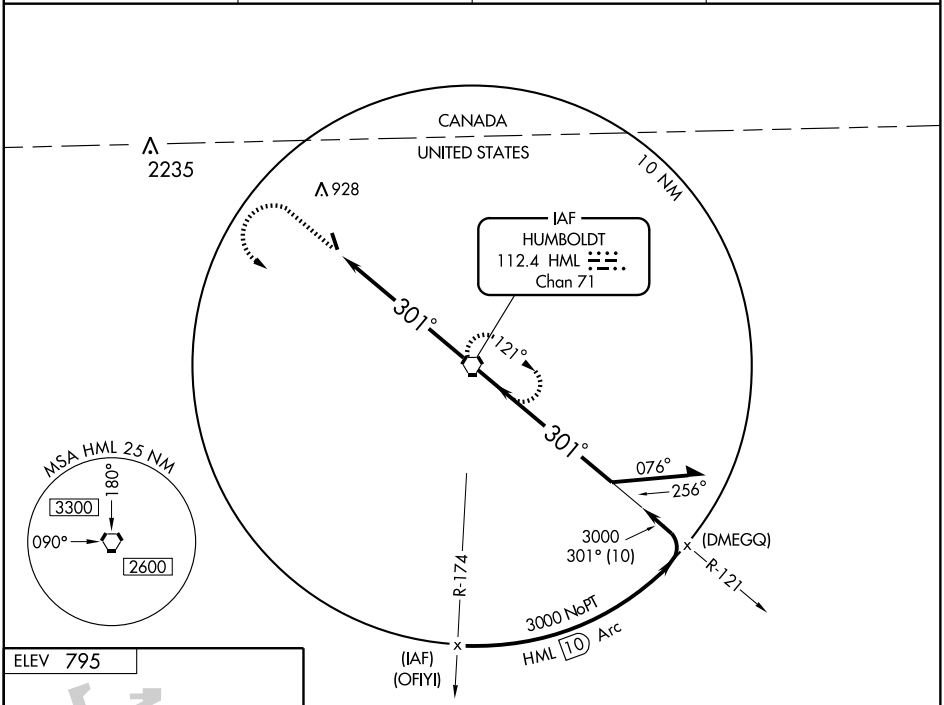
VOR or GPS RWY 33

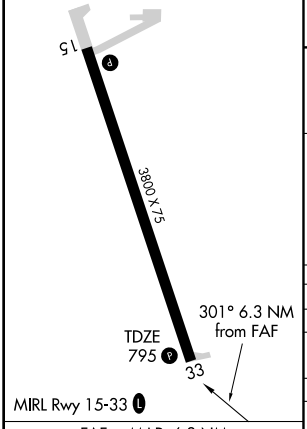
PEMBINA MUNI (PMB)

T
ANA — Obtain local altimeter setting on CTAF; when not received use Hallock altimeter setting.

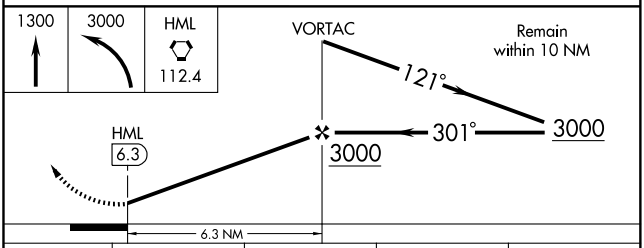
MISSED APPROACH: Climb to 1300 then climbing left turn to 3000 direct HML VORTAC and hold.

HALLOCK AWOS-3	MINNEAPOLIS CENTER	PRINCETON RADIO	UNICOM
126.475	132.15 269.6	122.1R	122.8 (CTAF) L





FAF to MAP 6.3 NM					
Knots	60	90	120	150	180
Min:Sec	6:18	4:12	3:09	2:31	2:06



CATEGORY	A	B	C	D
S-33		1180-1	385 (400-1)	NA
CIRCLING	1200-1 405 (500-1)	1300-1 505 (600-1)	1300-1½ 505 (600-1½)	NA
HALLOCK ALTIMETER SETTING MINIMUMS				
S-33	1220-1	425 (500-1)	1220-1¼ 425 (500-1¼)	NA
CIRCLING	1260-1 465 (500-1)	1360-1 565 (500-1)	1360-1½ 565 (500-1½)	NA

NC-1. 08 APR 2010 to 06 MAY 2010

APP CRS		
322°	Rwy Idg	4300
	TDZE	1818
	Apt Elev	1822

GPS RWY 32
ROLLA MUNI (Ø6D)

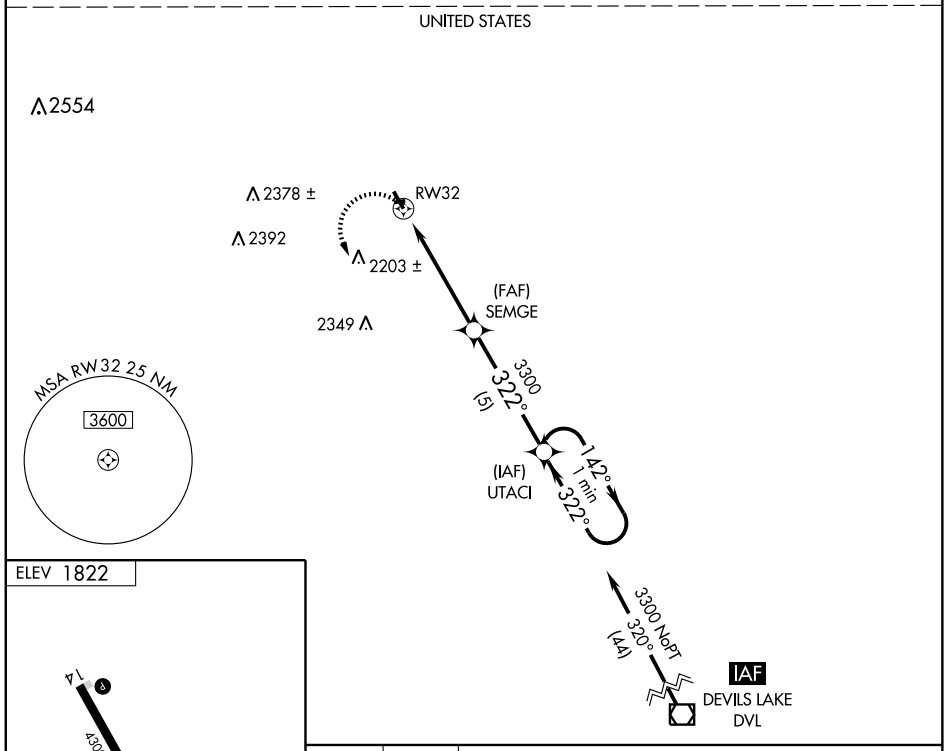
NA

Use Devils Lake altimeter setting.
IAF ARM APPROACH MODE PRIOR TO IAF.

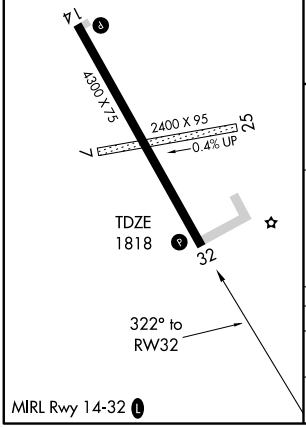
MISSED APPROACH: Climbing left turn to 4000 direct UTACI WP and hold.

AWOS-3	DEVILS LAKE AWOS-3	MINNEAPOLIS CENTER	UNICOM
118.125	125.875	127.6 279.6	122.8 (CTAF) L

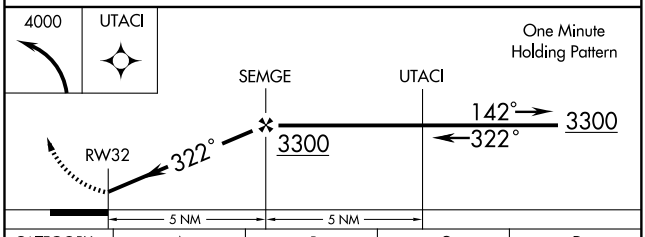
CANADA
UNITED STATES



ELEV 1822



MIRL Rwy 14-32 L



CATEGORY	A	B	C	D
S-32	2340-1	522 (600-1)	2340-1½ 522 (600-1½)	2340-1¾ 522 (600-1¾)
CIRCLING	2460-1	638 (700-1)	2480-1¾ 658 (700-1¾)	2660-2¾ 838 (900-2¾)

NC-1. 08 APR 2010 to 06 MAY 2010

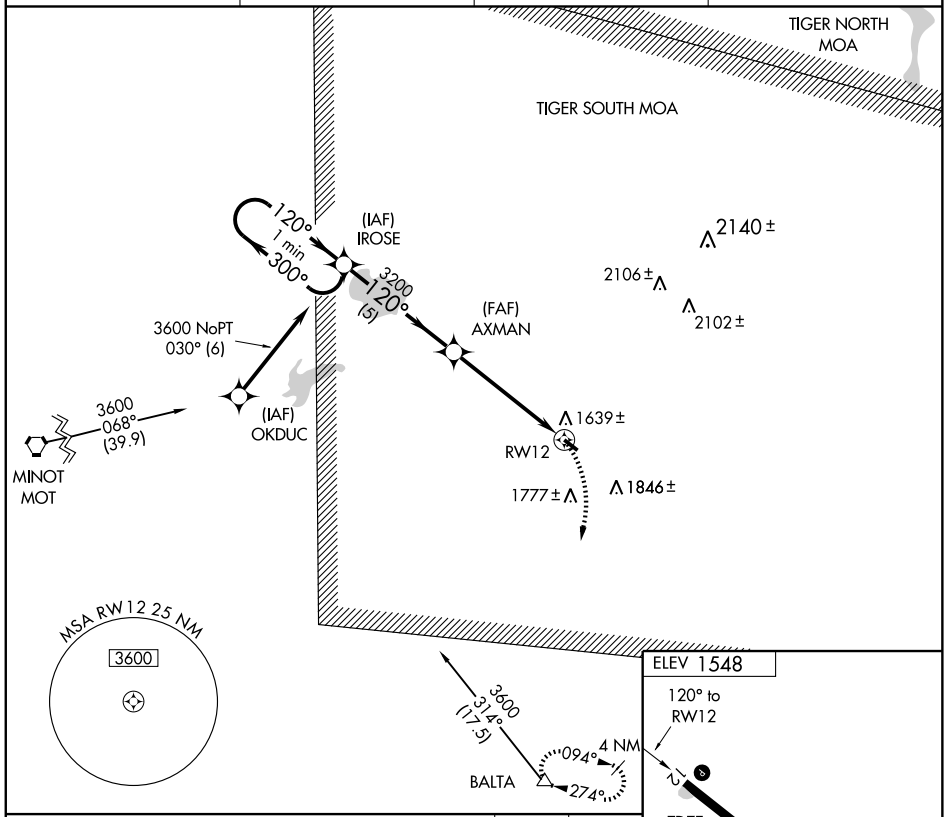
APP CRS	Rwy Idg	3604
120°	TDZE	1540
	Apt Elev	1548

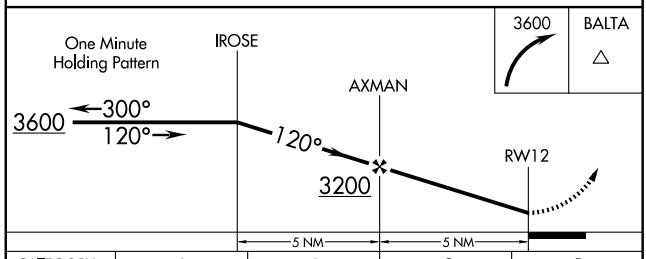
GPS RWY 12
RUGBY MUNI (RUG)

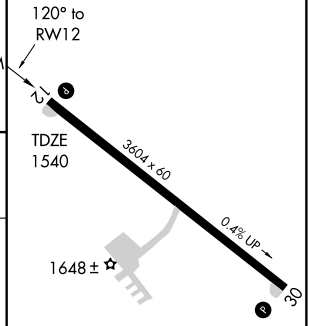
NA Use Devils Lake altimeter setting.

MISSED APPROACH: Climbing right turn to 3600 direct BALTA WP and hold.

AWOS-3	DEVILS LAKE AWOS-3	GRAND FORKS RADIO	UNICOM
118.475	125.875	122.2	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-12	2020-1	480 (500-1)	2020-1¼ 480 (500-1¼)	NA
CIRCLING	2160-1	612 (700-1)	2160-1¾ 612 (700-1¾)	NA

MIRL Rwy 12-30 L

NC-1. 08 APR 2010 to 06 MAY 2010

APP CRS	Rwy Idg	3604
301°	TDZE	1548
	Apt Elev	1548

GPS RWY 30
RUGBY MUNI (RUG)

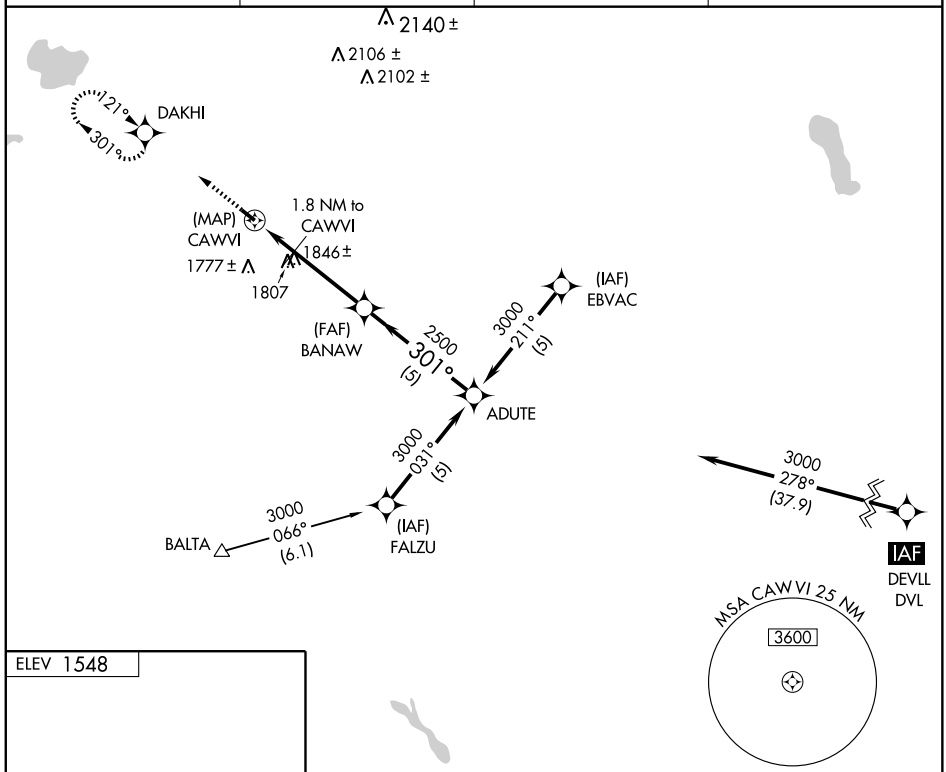
NA

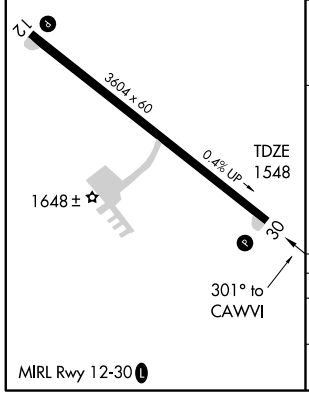
Use Devils Lake altimeter setting.

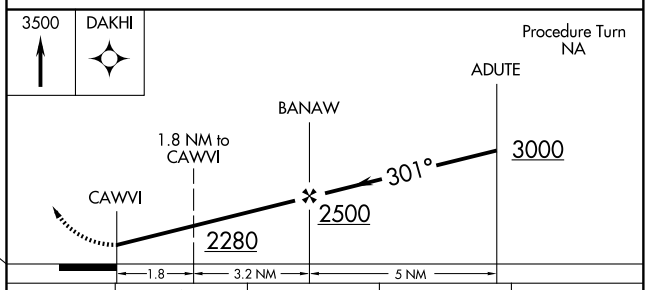
IAF ARM APPROACH MODE PRIOR TO IAF.

MISSED APPROACH: Climb to 3500 direct DAKHI WP and hold.

AWOS-3	DEVILS LAKE AWOS-3	GRAND FORKS RADIO	UNICOM
118.475	125.875	122.2	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-30	2080-1	532 (600-1)	2080-1½ 532 (600-1½)	NA
CIRCLING	2140-1	592 (600-1)	2140-1½ 592 (600-1½)	NA

MIRL Rwy 12-30 L

NC-1. 08 APR 2010 to 06 MAY 2010

APP CRS	Rwy Idg	3900
278°	TDZE	2244
	Apt Elev	2245

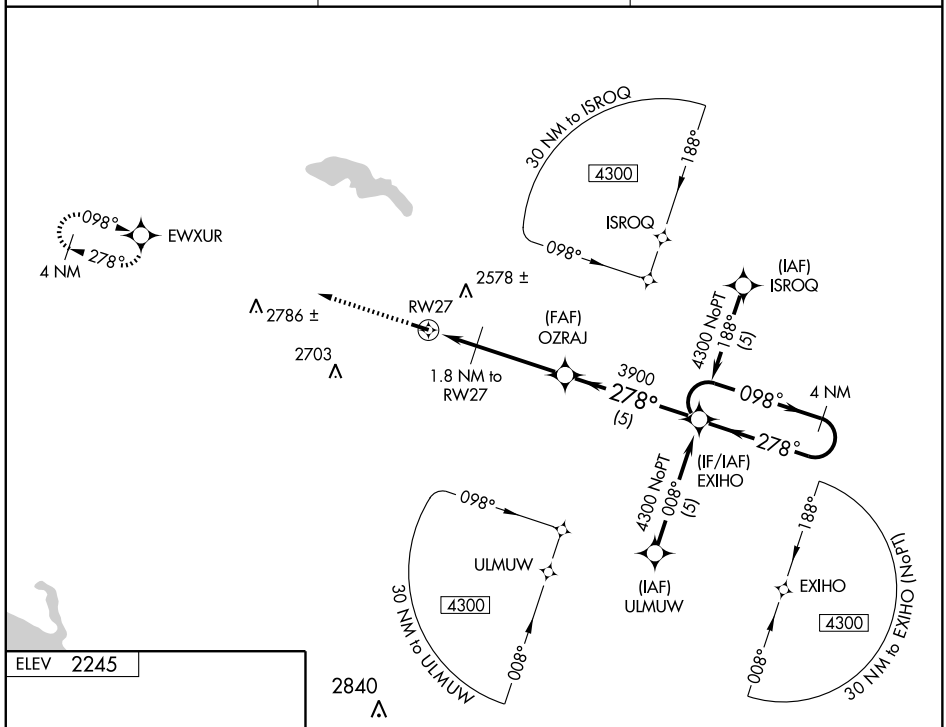
RNAV (GPS) RWY 27

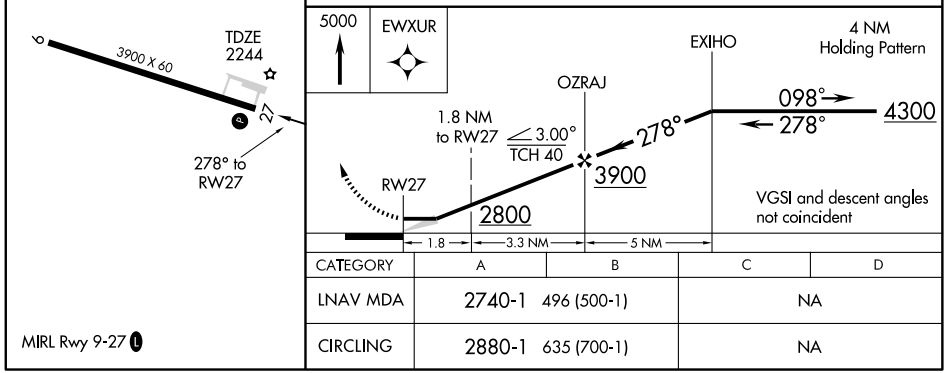
STANLEY MUNI (Ø8D)

NA Use Minot altimeter setting.
GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.

MISSED APPROACH: Climb to 5000 direct EWXUR WP and hold.

AWOS-3	MINNEAPOLIS CENTER	CTAF
121.1	127.6 279.6	122.9 L





CATEGORY	A	B	C	D
LNAV MDA	2740-1 496 (500-1)		NA	
CIRCLING	2880-1 635 (700-1)		NA	

MIRL Rwy 9-27 L

NC-1. 08 APR 2010 to 06 MAY 2010

APP CRS	Rwy Idg	5102
303°	TDZE	2271
	Apt Elev	2271

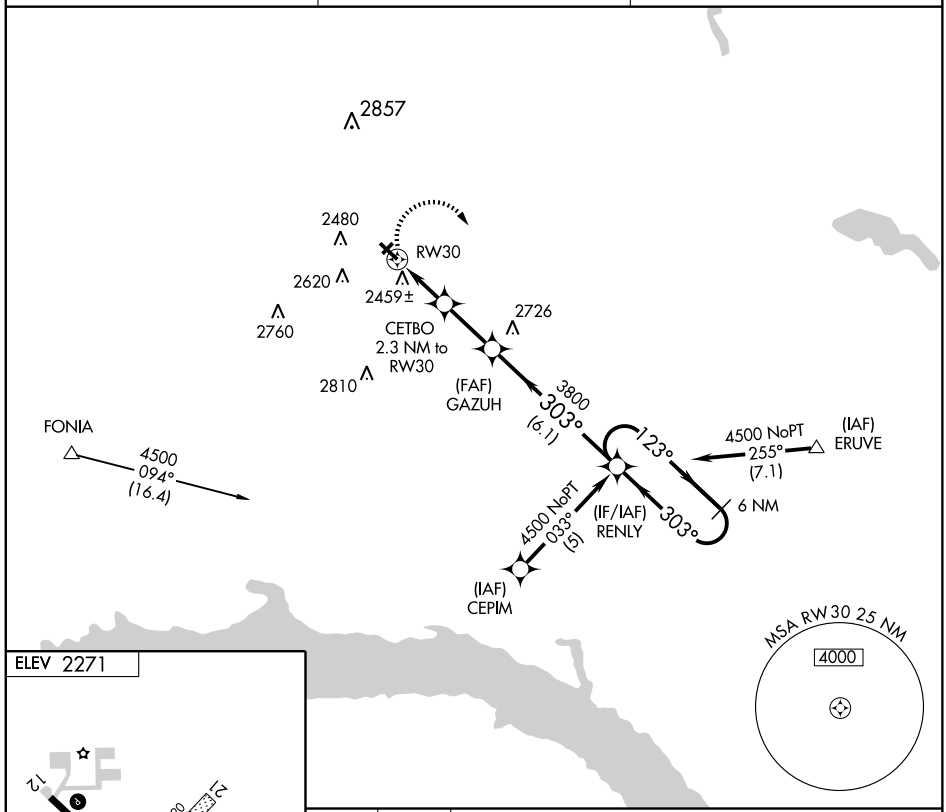
RNAV (GPS) RWY 30

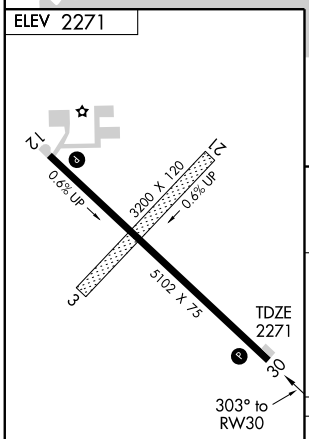
TIOGA MUNI (D60)

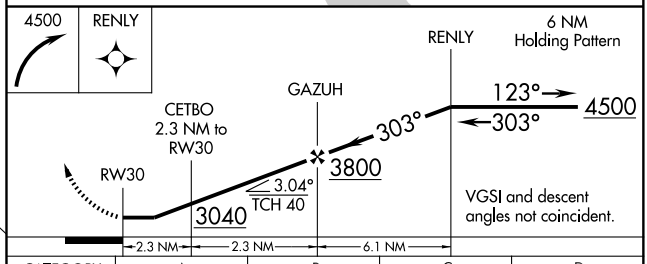
DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Williston altimeter setting and increase all MDA 120 feet and increase LNAV Cat C and D visibility ¼ mile; Circling Cat C and D visibility ½ mile.

MISSED APPROACH: Climbing right turn to 4500 direct RENLY and hold.

AWOS-3	MINNEAPOLIS CENTER	CTAF
118.575	127.6 279.6	122.9 L







CATEGORY	A	B	C	D
LNAV MDA	2720-1 449 (500-1)		2720-1¼ 449 (500-1¼)	2720-1½ 449 (500-1½)
CIRCLING	2760-1 489 (500-1)	2840-1 569 (600-1)	2840-1½ 569 (600-1½)	2980-2¼ 709 (800-2¼)

MIRL Rwy 12-30 L

NC-1, 08 APR 2010 to 06 MAY 2010

NDB VCY	APP CRS	Rwy Idg	4202
382	306°	TDZE	1393
		Apt Elev	1400

NDB or GPS RWY 31

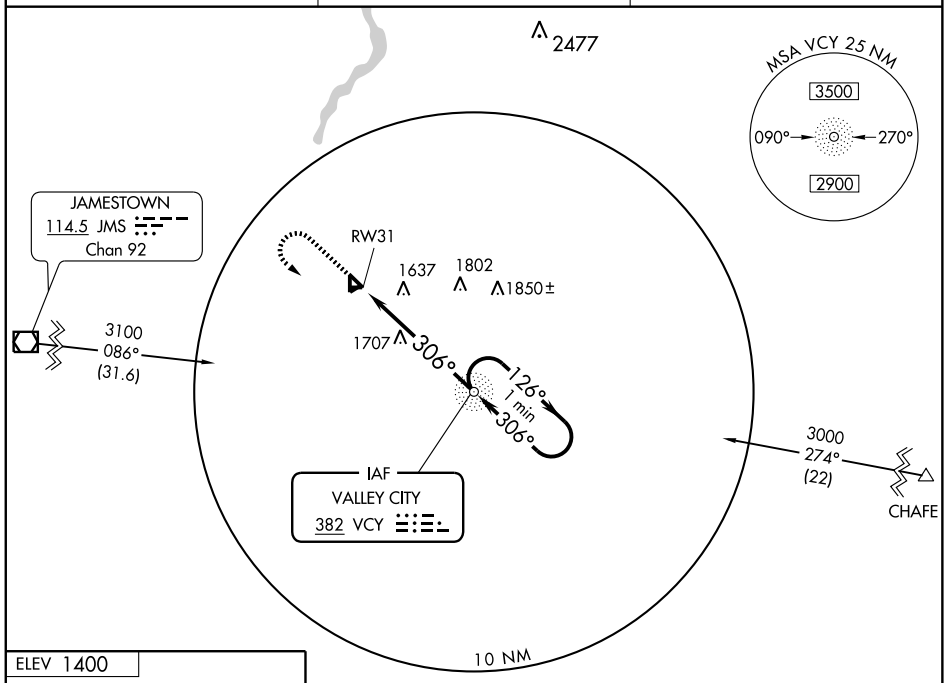
VALLEY CITY/BARNES COUNTY MUNI (6D8)

Obtain local altimeter setting on CTAF; when not received use Jamestown altimeter setting.

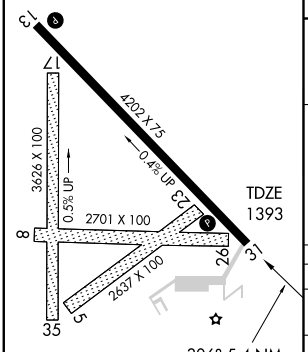
NA

MISSED APPROACH: Climb to 2500 then climbing left turn to 3000 direct VCY NDB and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
118.725	124.2 270.3	122.8 (CTAF) L



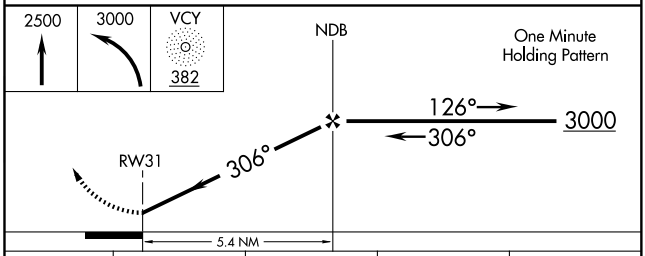
ELEV 1400



MIRL Rwy 13-31 L

REIL Rwys 13 and 31 L

FAF to MAP 5.4 NM					
Knots	60	90	120	150	180
Min:Sec	5:24	3:36	2:42	2:10	1:48



CATEGORY	A	B	C	D
S-31	2020-1	627 (700-1)	2020-1¾ 627 (700-1¾)	NA
CIRCLING	2020-1	620 (700-1)	2020-1¾ 620 (700-1¾)	NA
JAMESTOWN ALTIMETER SETTING MINIMUMS				
S-31	2120-1	727 (800-1)	2120-2 727 (800-2)	NA
CIRCLING	2120-1	720 (800-1)	2120-2 720 (800-2)	NA

NC-1. 08 APR 2010 to 06 MAY 2010

NDB BWP	APP CRS	Rwy Idg	5100
233	342°	TDZE	967
		Apt Elev	968

NDB RWY 33

WAHPETON/HARRY STERN (BWP)

▼ If local altimeter setting not received, use Fergus Falls, MN altimeter setting and increase all MDAs 80 feet.

△ NA

MISSED APPROACH: Climb to 2500 then left turn direct BWP NDB and hold.

AWOS-3	GRAND FORKS RADIO	UNICOM
127.875	122.425	123.0 (CTAF) L

FARGO
116.2 FAR
Chan 109

1567

2500
152°
(32.2)

IAF
BRECKENRIDGE-WAHPETON
233 BWP

1341±
1141
1245
1314
1153
1460
1162°
1069±

110.4 FFM
Chan 41

R-248

3100
280°
(59.8)

CINCH INT

342°

10 NM

207°
027°
162°
1089±

MSA BWP 25 NM
3100
110°
290°
2600

ALEXANDRIA
112.8 AXN
Chan 75

ELEV 968

15
21
5100 X 75
3254 X 150
342° to NDB
TDZE 967
33

REIL Rwys 15 and 33 L
MIRL Rwy 15-33 L

2500	BWP 233

NDB
Remain within 10 NM
162°
CINCH INT
2500
342°
1440*
2.5 NM

*1520 when using Fergus Falls altimeter setting.

CATEGORY	A	B	C	D
S-33	1440-1	473 (500-1)	1440-1¼ 473 (500-1¼)	1440-1½ 473 (500-1½)
CIRCLING	1520-1	552 (600-1)	1520-1½ 552 (600-1½)	1560-2 592 (600-2)
CINCH FIX MINIMUMS				
S-33	1380-1	413 (500-1)	1380-1¼	413 (500-1¼)
CIRCLING	1520-1	552 (600-1)	1520-1½ 552 (600-1½)	1560-2 592 (600-2)

NC-1. 08 APR 2010 to 06 MAY 2010

APP CRS	Rwy ldg	5100
151°	TDZE	968
	Apt Elev	968

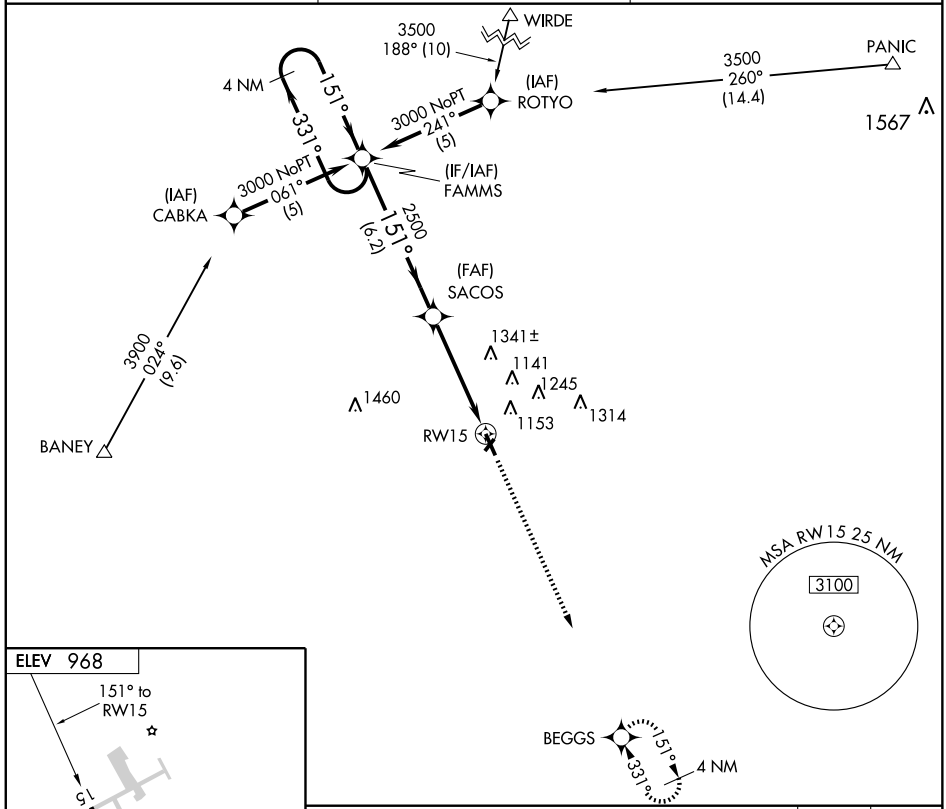
RNAV (GPS) RWY 15

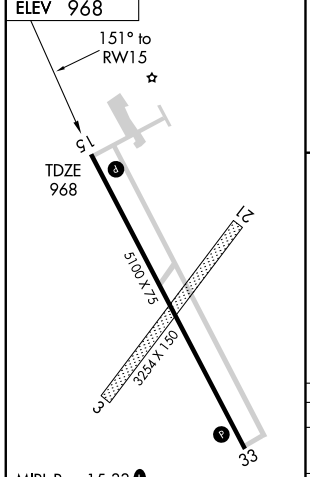
WAHPETON/ HARRY STERN (BWP)

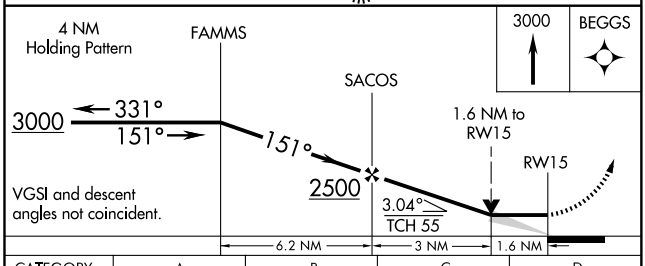
T NA — DME/DME RNP-0.3 NA. Circling to Rwy 3/21 NA at night. If local altimeter setting not received, use Fergus Falls, MN altimeter setting and increase all MDAs 80 feet. VDP NA when using Fergus Falls, MN altimeter setting.

MISSED APPROACH: Climb to 3000 direct BEGGS and hold.

AWOS-3	GRAND FORKS RADIO	UNICOM
127.875	122.425	123.0 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1500-1	532 (600-1)	1500-1½ 532 (600-1½)	1500-1¾ 532 (600-1¾)
CIRCLING	1520-1	552 (600-1)	1520-1½ 552 (600-1½)	1560-2 592 (600-2)

NC-1. 08 APR 2010 to 06 MAY 2010

APP CRS	Rwy Idg	5100
331°	TDZE	967
	Apt Elev	968

RNAV (GPS) RWY 33

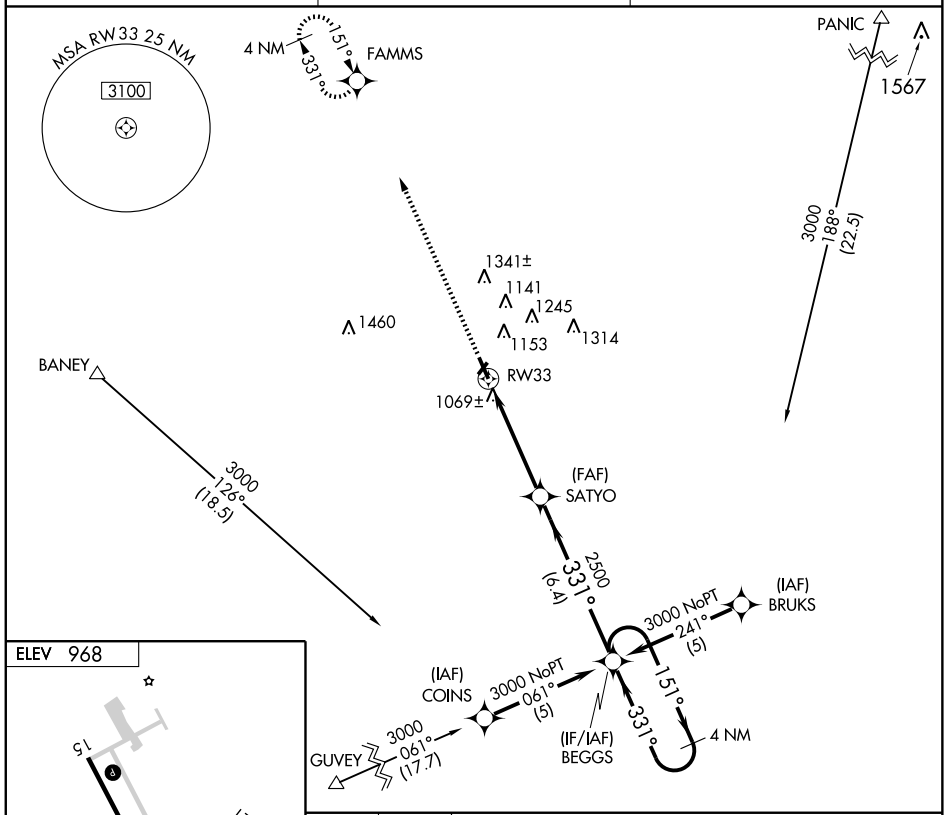
WAHPETON/HARRY STERN (BWP)

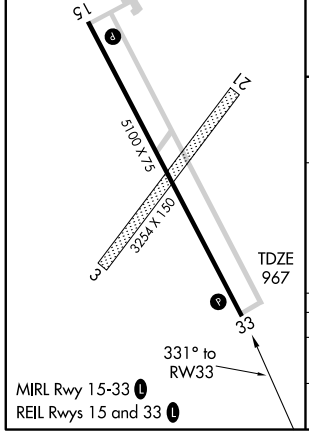
T
NA

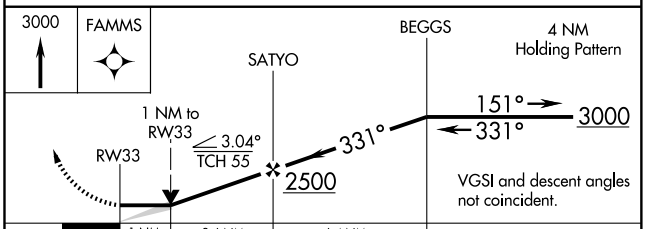
DME/DME RNP-0.3 NA.
If local altimeter setting not received , use Fergus Falls, MN altimeter setting and increase all MDAs 80 feet.
VDP NA when using Fergus Falls, MN altimeter setting.

MISSED APPROACH: Climb to 3000 direct FAMMS and hold.

AWOS-3	GRAND FORKS RADIO	UNICOM
127.875	122.425	123.0 (CTAF) L







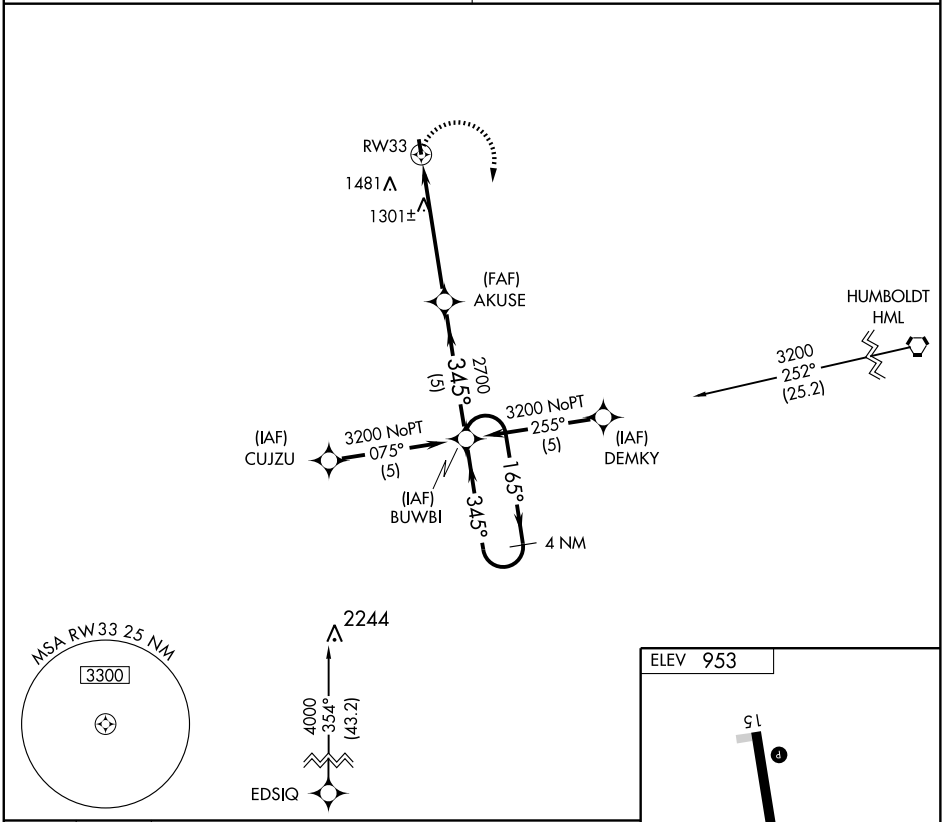
CATEGORY	A	B	C	D
LNAV MDA	1320-1 353 (400-1)			1320-1¼ 353 (400-1¼)
CIRCLING	1520-1 552 (600-1)		1520-1½ 552 (600-1½)	1560-2 592 (600-2)

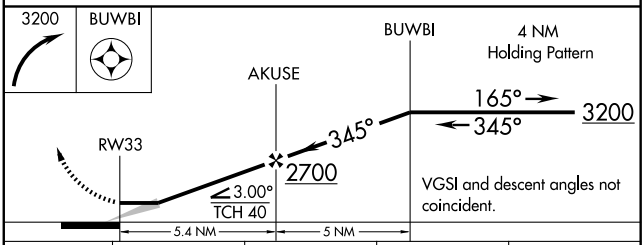
NC-1. 08 APR 2010 to 06 MAY 2010

APP CRS	Rwy Idg	3400
345°	TDZE	953
	Apt Elev	953

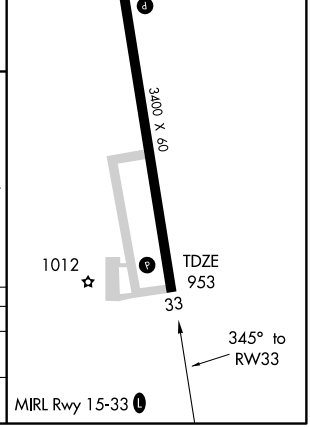
RNAV (GPS) RWY 33
WALHALLA MUNI (96D)

NA Use Hallock Muni altimeter setting. GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.	MISSED APPROACH: Climbing right turn to 3200 direct BUWBI WP and hold.
MINNEAPOLIS CENTER 132.15 269.6	CTAF 122.9 L





CATEGORY	A	B	C	D
LNAV MDA	1680-1	727 (800-1)	NA	
CIRCLING	1680-1	727 (800-1)	NA	



NC-1. 08 APR 2010 to 06 MAY 2010

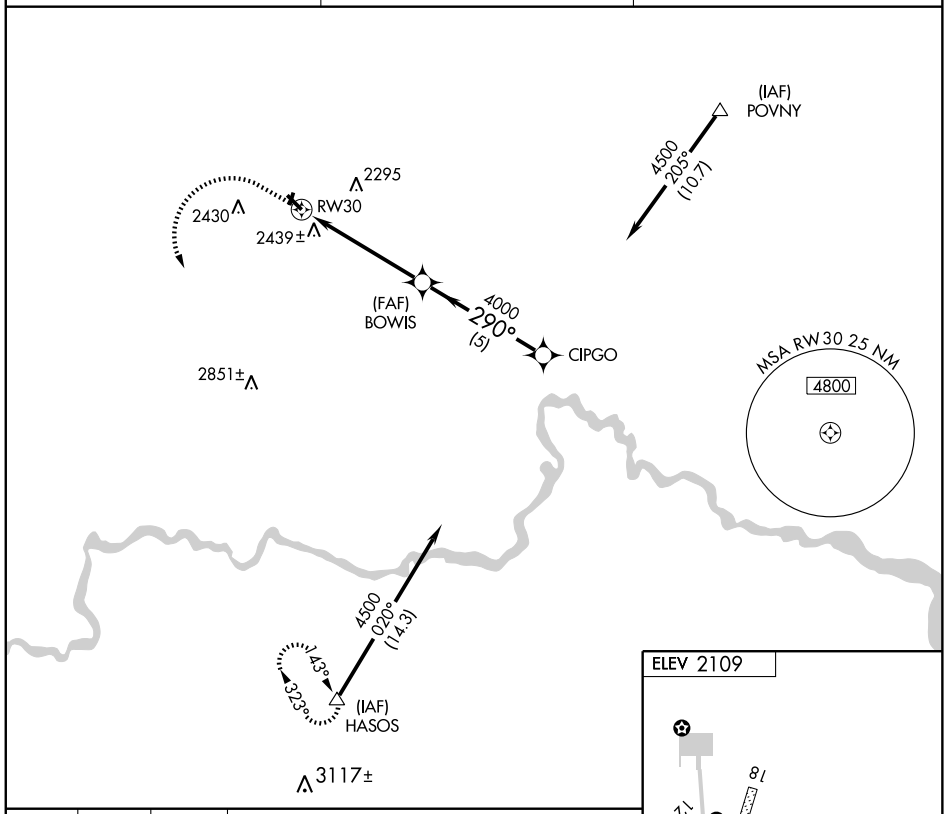
APP CRS	Rwy Idg	4402
290°	TDZE	2108
	Apt Elev	2109

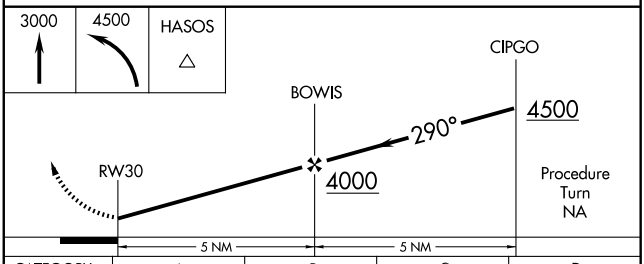
GPS RWY 30
WATFORD CITY MUNI (S25)

T
NA Use Williston altimeter setting.

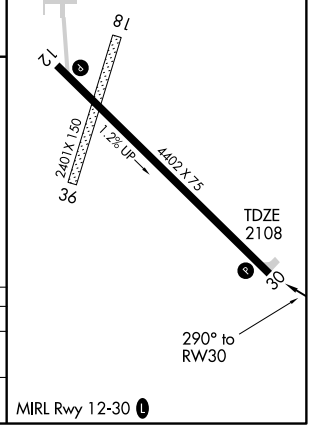
MISSED APPROACH: Climb to 3000 then climbing left turn to 4500 direct HASOS WP and hold.

AWOS-3	SALT LAKE CENTER	UNICOM
118.125	126.85 305.2	122.8 (CTAF) L





CATEGORY	A	B	C	D
S-30	2780-1	672 (700-1)	NA	
CIRCLING	2840-1	731 (800-1)	NA	



NC-1. 08 APR 2010 to 06 MAY 2010

LOC I-SFW	APP CRS	Rwy Idg	6650
108.7	292°	TDZE	1930
		Apt Elev	1982

ILS RWY 29

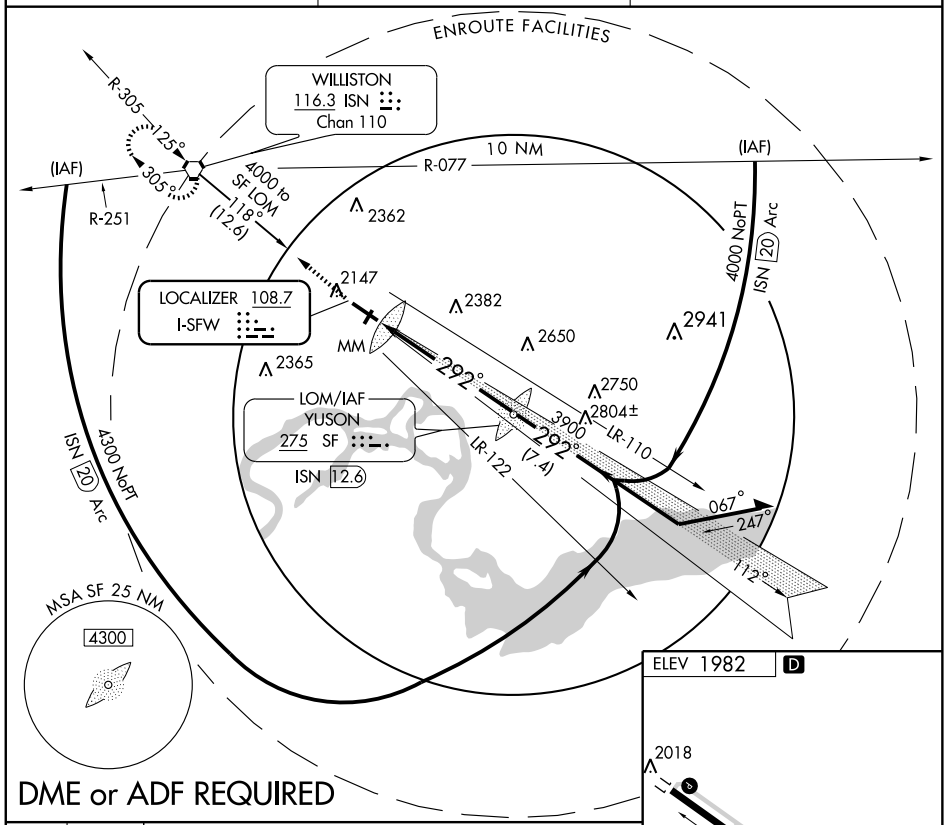
WILLISTON/ SLOULIN FIELD INTL (ISN)

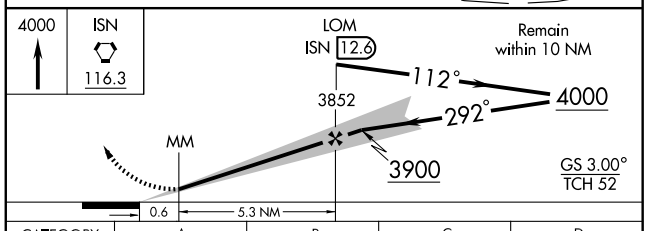
NA

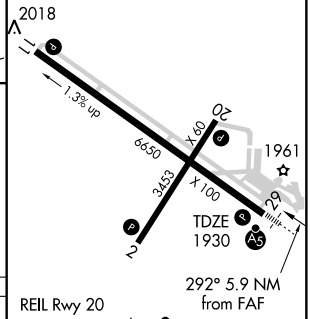
MALSR

MISSED APPROACH: Climb to 4000 direct ISN VORTAC and hold.

ASOS	SALT LAKE CITY CENTER	UNICOM
125.92	126.85 305.2	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-ILS 29	2130-½ 200 (200-½)			
S-LOC 29	2420-½ 490 (500-½)		2420-¾ 490 (500-¾)	2420-1 490 (500-1)
CIRCLING	2500-1 518 (600-1)		2500-1½ 518 (600-1½)	2560-2 578 (600-2)

REIL Rwy 20
REIL Rwys 2 and 11 L
MIRL Rwys 2-20 and 11-29 L

FAF to MAP 5.9 NM

Knots	60	90	120	150	180
Min:Sec	5:54	3:56	2:57	2:22	1:58

NC-1. 08 APR 2010 to 06 MAY 2010

LOM SF	APP CRS	Rwy Idg	6650
275	292°	TDZE	1930
		Apt Elev	1982

NDB RWY 29

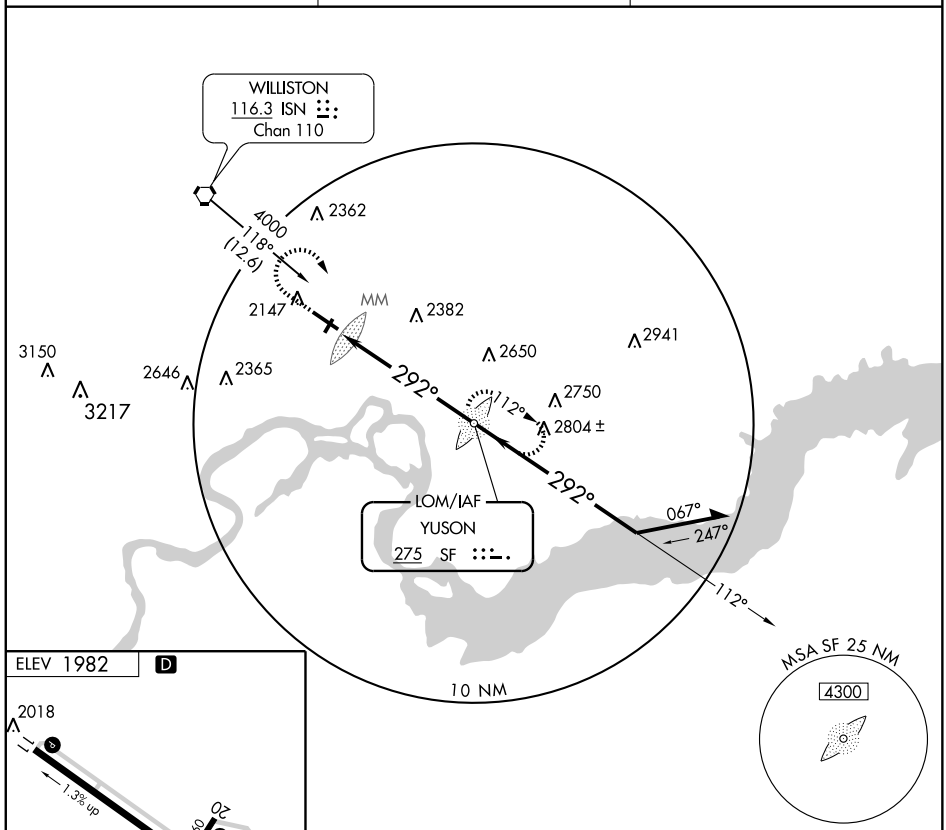
WILLISTON/ SLOULIN FIELD INTL (ISN)

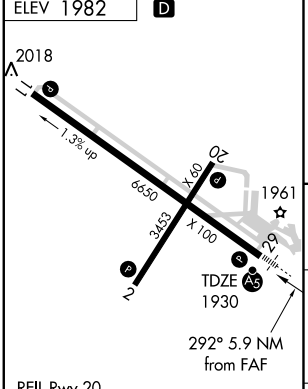
NA

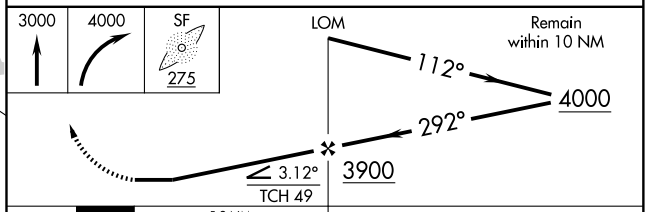
MALSR

MISSED APPROACH: Climb to 3000 then climbing right turn to 4000 direct SF LOM and hold.

ASOS	SALT LAKE CITY CENTER	UNICOM
125.92	126.85 305.2	122.8 (CTAF) L







REIL Rwy 20
REIL Rwys 2 and 11 L
MIRL Rwys 2-20 and 11-29 L

FAF to MAP 5.9 NM

Knots	60	90	120	150	180
Min:Sec	5:54	3:56	2:57	2:22	1:58

CATEGORY	A	B	C	D
S-29	2480-¾ 550 (500-¾)		2480-1 550 (500-1)	2480-1½ 550 (500-1½)
CIRCLING	2500-1 518 (600-1)		2500-1½ 518 (600-1½)	2560-2 578 (600-2)

NC-1. 08 APR 2010 to 06 MAY 2010

VORTAC ISN	APP CRS	Rwy Idg	6650
116.3	303°	TDZE	1930
Chan 110		Apt Elev	1982

VOR/DME or GPS RWY 29

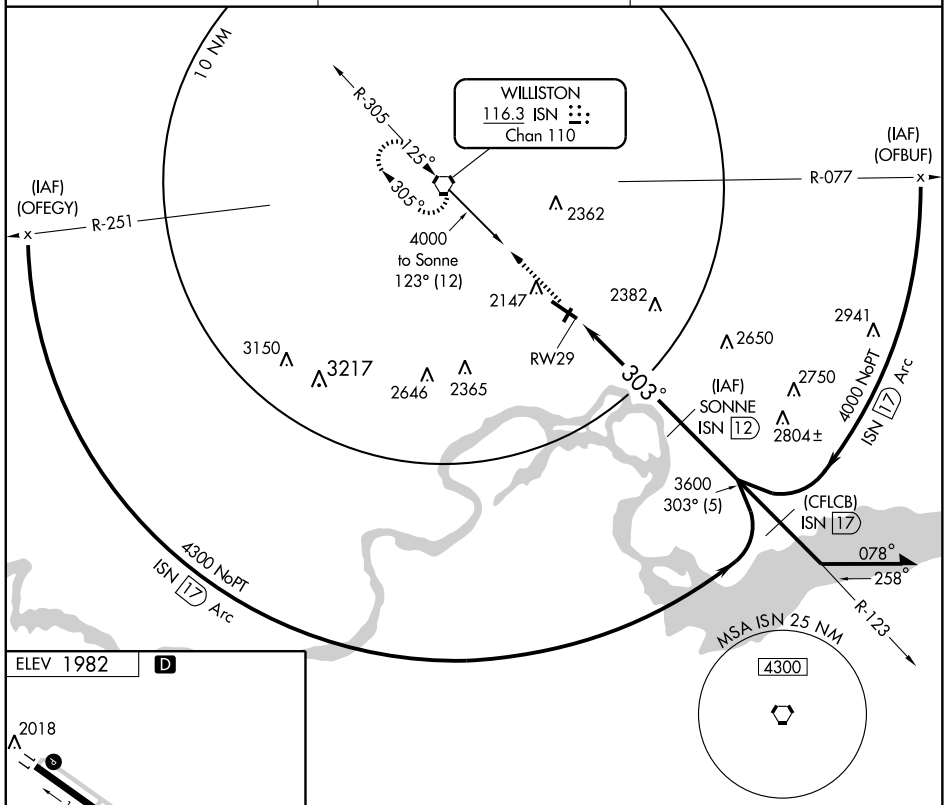
WILLISTON/ SLOULIN FIELD INTL (ISN)

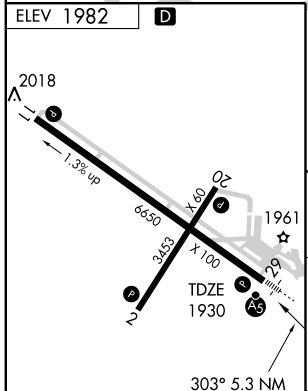
Inoperative components table does not apply.

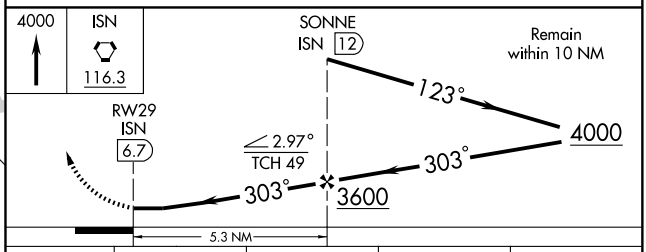
MALSR

MISSED APPROACH: Climb to 4000 direct ISN VORTAC and hold.

ASOS	SALT LAKE CITY CENTER	UNICOM
125.92	126.85 305.2	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-29	2420-1	490 (500-1)	2420-1¼ 490 (500-1¼)	2420-1½ 490 (500-1½)
CIRCLING	2500-1	518 (600-1)	2500-1½ 518 (600-1½)	2560-2 578 (600-2)

REIL Rwy 20
REIL Rwys 2 and 11 L
MIRL Rwys 2-20 and 11-29 L

NC-1. 08 APR 2010 to 06 MAY 2010

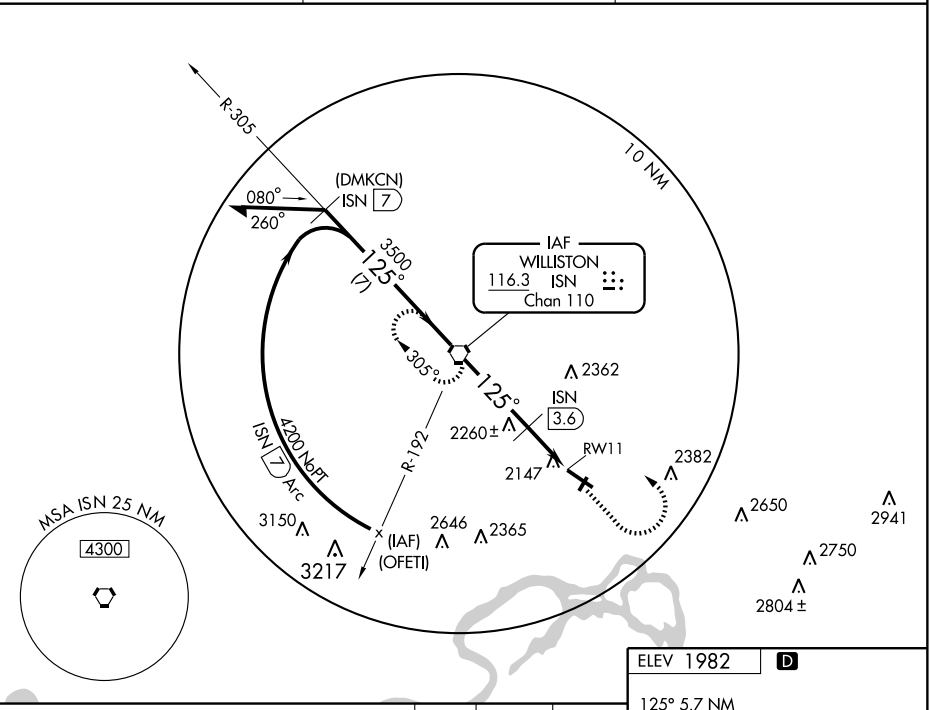
VORTAC ISN	APP CRS	Rwy Idg	6650
116.3	125°	TDZE	1982
Chan 110		Apt Elev	1982

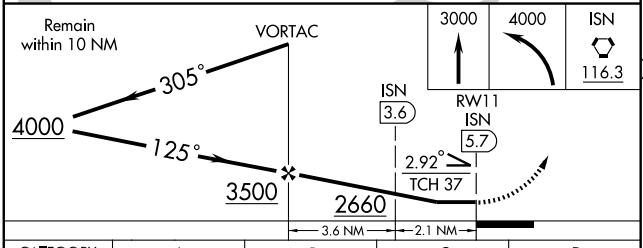
VOR or GPS RWY 11

WILLISTON/ SLOULIN FIELD INTL (ISN)

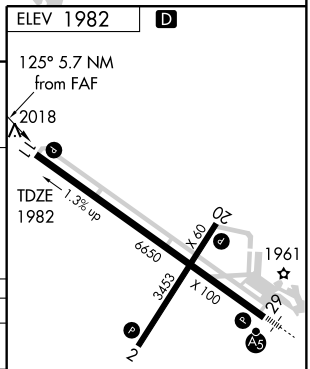
MISSED APPROACH: Climb to 3000 then climbing left turn to 4000 direct ISN VORTAC and hold.

ASOS	SALT LAKE CITY CENTER	UNICOM
125.92	126.85 305.2	122.8 (CTAF) L





CATEGORY	A	B	C	D
S-11	2660-1 678 (700-1)		2660-2 678 (700-2)	2660-2¼ 678 (700-2¼)
CIRCLING	2660-1 678 (700-1)		2660-2 678 (700-2)	2660-2¼ 678 (700-2¼)
DME MINIMUMS				
S-11	2520-1 538 (600-1)		2520-1½ 538 (600-1½)	2520-1¾ 538 (600-1¾)
CIRCLING	2520-1 538 (600-1)		2520-1½ 538 (600-1½)	2560-2 578 (600-2)



REIL Rwy 20
REIL Rwys 2 and 11 L
MIRL Rwys 2-20 and 11-29 L

FAF to MAP 5.7 NM					
Knots	60	90	120	150	180
Min:Sec	5:42	3:48	2:51	2:17	1:54

NC-1. 08 APR 2010 to 06 MAY 2010